VOLUME 1 GENERAL INSPECTOR GUIDANCE AND INFORMATION

CHAPTER 2 THE FEDERAL AVIATION ADMINISTRATION AND FLIGHT STANDARDS HISTORY, ORGANIZATION, AND REGULATORY RESPONSIBILITIES

Section 2 Title 49, United States Code

1-111 THE FEDERAL AVIATION ACT OF 1958. The Federal Aviation Act (FA Act) was signed into law on August 23, 1958. This Public Law (PL) created the Federal Aviation Administration (FAA)—then called the Federal Aviation Agency—and empowered it to promote flight safety in air commerce by prescribing safety standards. It gave the regulatory authority of aviation functions to two independent agencies: the FAA and the Civil Aeronautics Board (CAB). The CAB retained responsibility for the economic regulation of air carriers and for the investigation of aircraft accidents. On July 5, 1994, the FA Act, along with many other transportation-related statutes, was recodified into Title 49 of the United States Code (49 U.S.C.). Title 49 U.S.C. § 40101 describes six basic responsibilities of the FAA, which are summarized as follows:

- Regulation of air commerce to best promote its development and safety and to fulfill national defense requirements;
- Promotion, encouragement, and development of civil aeronautics;
- Control of the use of navigable U.S. airspace and the regulation of both civil and military operations in that airspace in the interest of safety and efficiency;
- Consolidation of air navigation facility research and development, as well as the installation and operation of those facilities;
- Development and operation of a common air traffic control and navigation system for military and civil aircraft; and
- Providing assistance to law enforcement agencies in the enforcement of laws related to regulation of controlled substances, to the extent consistent with aviation safety.

1-112 EVOLUTION OF AIR COMMERCE SAFETY REGULATION. In Article I, Section 8 of the U.S. Constitution, Congress is given the power to regulate and control interstate commerce. Interstate highway, railway, and water modes of transportation were regulated before the advent of air transportation. Air transportation was not regulated until the Air Commerce Act of 1926 empowered the Secretary of Commerce to establish the necessary regulatory system to control and regulate air commerce. The initial regulatory system that was established evolved into an organized system of Civil Aviation Regulations (CAR). The CAR was supplemented by corresponding Civil Aviation Manuals (CAM) which contained policies, procedures, and an interpretation of each CAR section. The CAR and CAM became outmoded with the rapid growth of air transportation and with the introduction of turbojet transport category airplanes in the 1950s. Recodification of the CAR began in 1961 and was completed in 1964 with the adoption of the Federal Aviation Regulations (FAR).

1-113 AVIATION REGULATION. Civil aviation regulation is clearly identified in 49 U.S.C. as a major FAA responsibility. The FAA promotes safe and efficient civil aviation by establishing and maintaining federal airways including navigation aids (NAVAID), and by

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supporting airport development, air traffic control services, and aviation educational programs. The FAA's principal responsibility in regulating aviation is to ensure safety at all levels of aviation activity. Safety of flight is dependent upon the regulation and compliance with these regulations. Many other nations use Title 14 of the Code of Federal Regulations (14 CFR) as regulatory model for their civil aviation programs. PL 104–264, the Reauthorization Act of 1996, enacted October 10, 1996, eliminated the FAA's mandate to "promote" aviation.

1-114 THE NATIONAL TRANSPORTATION SAFETY BOARD (NTSB). The NTSB was established by the Department of Transportation (DOT) Act and was made a part of the DOT on April 1, 1967. The NTSB was given the CAB functions, powers, and duties concerning aviation accident investigations, formulating probable cause of accidents, and making aviation safety improvement recommendations. On April 1, 1975, the NTSB was made an independent agency. By becoming independent of DOT, the NTSB was put in a more objective position for handling evaluations of DOT and FAA actions and officials, and for formulating safety recommendations. Although FAA personnel do participate in aviation accident investigations conducted by the NTSB, they are not permitted to participate in determining the "probable cause" of any aviation accident investigated by the NTSB. At the request of the NTSB, certain aviation accidents are investigated by the FAA. The facts, conditions, and circumstances of these accidents are reported to the NTSB, and the NTSB determines "probable cause." Based on accident investigation findings, the NTSB recommends changes in aviation regulations, procedures, and equipment to improve aviation safety.

NOTE: On July 5, 1994, the PLs empowering the NTSB to conduct investigations and adjudication of FAA Enforcement and Penalty cases were recodified into 49 U.S.C., Subtitle II.

1-115 TRANSFER OF CAB FUNCTIONS TO DOT. The Airline Deregulation Act (ADA) was enacted on October 24, 1978. This act expressed the intention of Congress to diminish federal regulation of airline economics. This act abolished the CAB on December 31, 1984. On January 1, 1985, the administrative functions of the CAB were transferred to the Office of the Secretary of Transportation (OST). Included among these administrative functions was the requirement that air carriers be fit, willing, and able to perform as air carriers. Such air carriers must hold economic certificates or an exemption under Title 49 to provide air transportation to the public.

1-116 FLIGHT STANDARDS SERVICE (AFS) AND 49 U.S.C. The FAA regulatory authority to prescribe, revise, and enforce standards is in 49 U.S.C., Subtitle VII, Chapter 447, Safety Regulation. Subtitle VII is the foundation for the present structure of AFS. AFS is directly responsible for specific sections of Subtitle VII while other sections of Subtitle VII are the responsibility of other FAA offices. AFS, however, has surveillance and enforcement responsibilities related to all sections of Subtitle VII. The more important sections of Subtitle VII are briefly summarized as follows:

A. Section 44701, General Requirements. This section empowers the FAA to promote flight safety for civil aircraft in air commerce. The Administrator has the duty to require minimum standards for governing practices, methods, and procedures to provide for national security and safety in air commerce.

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B. Section 44702, Forms of Applications. The FAA is authorized to prescribe the form and content of applications for certificates. The Administrator may require that these applications be administered under oath.

C. Section 44703, Airman Certificates. The FAA is authorized to issue airman certificates, which specify the capacity in which holders are authorized to serve as airmen.

D. Section 44704, Aircraft Certificates. The FAA is authorized to issue type certificates (TC) for aircraft, aircraft engines, and propellers. The Administrator can specify, in regulations, the appliances for which the issuance of TCs is reasonably required, and can also issue those certificates.

E. Section 44705, Air Carrier Operating Certificates. The FAA is empowered to issue air carrier certificates and to establish minimum safety standards for the operation of the air carrier to whom the certificate is issued.

F. Section 44706, Airport Operating Certificates. The Administrator is authorized to issue or exempt airport operating certificates to airports serving air carriers certificated by DOT and to establish safety standards for the operation of those airports.

G. Section 44707, Air Agency Rating. The FAA is authorized to provide for the examination and rating of air agencies, such as civilian flight schools, repair stations, and other air agencies. The Administrator is also authorized to issue certificates for these flight schools, repair stations, and air agencies.

H. Section 44708, Air Navigation Facility Rating. The FAA is authorized to inspect, classify, and rate the suitability of any air navigation facility available for the use of civil aircraft. The Administrator is also authorized to issue a certificate for any such navigation facility.

I. Section 44709, Reexamination, Amendment, Suspension, and Revocation of Certificates. The FAA may reinspect any aircraft, air carrier, air agency, or component, and may reexamine any airmen holding an FAA certificate. The FAA may also issue orders that amend, modify, suspend, or revoke, in whole or in part, any type of certificate issued. Any person whose certificate is affected by an order of the Administrator under this section may appeal the Secretary's order to the NTSB.

J. Section 44710, Revocation for Controlled Substance Violations. This section provides that the FAA shall revoke the airman certificate of any airman that is convicted of a felony for violation of a controlled substance law if an aircraft was used to commit the offense or if the individual served as a crewmember of an aircraft in connection with committing the offense.

K. Section 44711, Prohibitions. This section prohibits any person or organization from conducting any air commerce operation unless the person or organization has proper certification and hires personnel who are properly certificated. This section also prohibits persons or organizations from performing any aviation services contrary to regulations prescribed under Subtitle VII.

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L. Section 44713, Maintenance of Equipment in Air Transportation. In this section, each air carrier is given the duty to perform inspections, maintenance, overhaul, and repair of all equipment used in air transportation as required by 49 U.S.C. and the orders, rules, and regulations of the FAA.

M. Section 44715, Control and Abatement of Aircraft Noise and Sonic Boom. This section provides that the FAA, after consultation with the Secretary of Transportation and the Environmental Protection Agency (EPA), shall prescribe and amend standards and regulations for the measurement of aircraft noise and sonic boom.

1-117 PRIVATE SECTOR RESPONSIBILITIES.

A. Private Sector. The term "private sector," when applied to aviation, encompasses all individuals and organizations participating in air commerce. While individuals and organizations such as pilots, mechanics, air carriers, and manufacturers participate directly in air commerce, other individuals and organizations such as vendors, food caterers, travel agents, baggage handlers, and aircraft sales personnel participate indirectly. The FAA, which is part of the "public sector," has the duty (authorized by 49 U.S.C., Subtitle VII, Aviation Programs) to establish minimum standards, rules, and national policies to provide adequately for national security and safety in air commerce. This responsibility for aviation safety, however, does not rest entirely with the FAA. Persons or organizations of the "private sector" are also obligated to provide for public safety. All airmen, air carriers, aircraft owners and operators, air agencies, and certain airport operators who qualify for and accept an FAA certificate, assume these "private sector" responsibilities.

B. Organizations Engaged In Air Transportation. A major part of air commerce is conducted by "private" persons or organizations engaged in air transportation. These persons or organizations are referred to as air carriers and are involved in the "common carriage" by aircraft, for compensation or hire, of persons, property, or mail. Title 49 requires a classification of safety standards appropriate to the differences between air transportation and other forms of air commerce. Therefore, safety standards applicable to air transportation (air carriers) are more stringent than standards applicable to persons or organizations not involved in common carriage.

1-118 AIR CARRIER RESPONSIBILITIES FOR PUBLIC SAFETY.

A. Section 44702(b). Section 44702(b) specifies, in part, that when prescribing standards and regulations and when issuing certificates, the FAA shall give full consideration to "the duty of an air carrier to provide service with the highest possible degree of safety in the public interest…" 49 U.S.C. charges the FAA with the responsibility for promulgating and enforcing adequate standards and regulations. At the same time, 49 U.S.C. recognizes that the holders of air carrier certificates have a direct responsibility for providing air transportation with the highest possible degree of safety. The meaning of § 744702(b) should be clearly understood. It means that this responsibility rests directly with the air carrier, irrespective of any action taken or not taken by an FAA inspector or the FAA.

B. Compliance. Before certification, the FAA's objective is to make a factual and legal determination that a prospective certificate holder is willing and able to fulfill its duties as set

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forth by 49 U.S.C. and to comply with the minimum standards and regulations prescribed by the FAA. This objective continues after certification—49 U.S.C. § 44709, specifies that, if a certificate holder fails to comply with the minimum standards and regulations, the FAA may reexamine any certificate holder or appliance. As a result of an inspection, a certificate may be amended, modified, suspended, or revoked, in whole or in part. Additionally, § 44713(b) generally provides that whenever an inspector finds that any aircraft, aircraft engine, propeller, or appliance used or intended to be used by any air carrier in air transportation, is not in condition for safe operation, the inspector shall notify the air carrier, and the product shall not be used in air transportation until the FAA finds that the product has been returned to a safe condition.

1-119 AIR OPERATOR RESPONSIBILITIES FOR PUBLIC SAFETY. The following are conditions and/or situations which could indicate that an air operator is unable and/or unwilling to carry out its duties as set forth by 49 U.S.C.

A. Demonstrate the Ability. The FAA views intentional or reckless deviations from regulatory standards (as defined in Volume 14, Chapter 2 and FAA Order 2150.3, chapter 5) or patterns of behavior or performance that present an unacceptable risk to safety as posing the highest risk to safe operation of the National Airspace System (NAS). These types of deviations from regulatory standards are indicative that the air operator is incapable or unwilling to perform services with the highest possible degree of safety. Air operators must demonstrate the ability to consistently comply with the minimum standards and regulations without constant FAA surveillance. Circumstances which indicate a need for constant surveillance of all operations of an air operator may provide sufficient reasons and evidence to invoke the provisions of 49 U.S.C. §§ 44709 and 1153 to suspend or revoke the certificate or to amend the operating authority specified in operations specifications.

B. Lack of Knowledge and/or Understanding of Minimum Standards and Safe Practices. Inadequate knowledge of minimum standards, regulations, or safe operating practices displayed by air operator management personnel may indicate a lack of concern for the duty of the air operator as recognized in 49 U.S.C. A lack of knowledge and/or understanding of minimum standards and safe practices displayed by an air operator's employees may be evidence that the air operator is not providing sufficient training and guidance required by current regulations and, consequently, not fulfilling its duties.

C. Certificate Holder's Responsibility. Current regulations specify the certificate holder is responsible for operational control and airworthiness of its aircraft. Control and discipline of an air operator's employees and agents are essential factors in fulfilling these responsibilities. The inability or lack of motivation to exercise such operational and/or quality airworthiness control clearly indicates that an air operator cannot or will not fulfill its duty.

D. Accurate Recordkeeping. Accurate recordkeeping is a key factor in assuring positive operational and quality airworthiness control. It is the only method currently recognized of demonstrating that such control has been exercised. Accurate recordkeeping is also the only known method for an air operator to show continuing compliance with the minimum standards and regulations. Usually, compliance can only be substantiated by records and should never be presumed. Inaccurate and/or incomplete records should not be condoned. Knowing and willful falsification or alteration of records is a misdemeanor under 49 U.S.C. § 46310 and should be

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promptly prosecuted in accordance with the appropriate provisions of the applicable statutes and regulations.

> NOTE: Title 49 U.S.C. and 14 CFR contain the principle that air carriers holding out services to the public must be held to higher standards than the General Aviation (GA) community. Inspectors must also be aware of the private rights of citizens and air carriers. Since public safety and national security are among the FAA's highest priorities, FAA inspectors must be prepared to take action when any air carrier does not, or cannot, fulfill its duty to perform services with the highest possible degree of safety.

RESERVED. Paragraphs 1-120 through 1-135.

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VOLUME 2 AIR OPERATOR AND AIR AGENCY CERTIFICATION AND APPLICATION PROCESS

CHAPTER 1 THE GENERIC PROCESS FOR CERTIFICATING ORGANIZATIONS

Section 4 Preparation of FAA Operating Certificates

2-71 FORMS TO USE. Use the following Federal Aviation Administration (FAA) forms to prepare the appropriate certificates (specific examples found in Figures 2-5 through 2-9A):

- FAA Form 8000-4, Air Agency Certificate.
- FAA Form 8000-43, Training Center Certificate.
- FAA Form 8430-18, Air Carrier Certificate.
- FAA Form 8430-21, Operating Certificate.

2-72 REQUIRED INFORMATION. Enter the following information on the form, as appropriate:

A. Legal Name. Enter the certificate holder's legal name directly below the words "This certifies that."

B. Additional Business Names for Operators, Air Agencies, and Training Centers. For Title 14 of the Code of Federal Regulations (14 CFR) parts 125, 133, and 137 certificates, and Air Agency and Training Center Certificates, place any additional business names on the certificate below the legal name.

1) The acronym "DBA" (doing business as) precedes the additional business name.

2) The certificate holder will provide evidence, as applicable, of the appropriate state or local government's authorization of all business names.

3) The certificate-holding district office (CHDO) should not restrict the number of DBAs used by a certificate holder. Should there be insufficient space on the certificate to accommodate all DBAs, the legal name and address should appear on the certificate with a notation to see an accompanying letter for a list of DBAs. Part 125 operators will have DBAs placed on their operations specifications (OpSpecs).

C. Additional Business Names for 14 CFR Parts 121 and 135 Certificates. For parts 121 and 135 certificates, only place DBA names in the operator's OpSpecs and not on the certificate.

D. Address of Principal Base. Enter the address of the certificate holder's principal base of operations directly below the certificate holder's name. A post office box address is not acceptable unless it also reflects the physical location of the principal base of operations.

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E. Statement of Authority.

1) FAA Form 8430-21. Do not modify the preprinted certification statement of authority on FAA Form 8430-21. However, complete the statement of authority (as applicable) as follows:

a) Part 125 (Operations).

b) Part 133 (Rotorcraft External-Load Operations).

c) Part 135 (Operations).

1. Operating Certificate for Intrastate Common Carriage.

a. In the first space, enter "Intrastate Common Carriage Operations."

b. In the second space, enter "and the terms, conditions, and limitations in the approved operations specifications."

c. In the third space, enter "indefinitely."

2. Operating Certificate for Private Carriage.

a. In the first space, enter "Private Carriage Operations."

b. In the second space, enter "and the terms, conditions, and limitations in the approved operations specifications."

c. In the third space, enter "indefinitely."

d) Part 137 (Private Agricultural Aircraft Operations or Commercial Agricultural Aircraft Operations, as appropriate).

2) FAA Form 8430-18. Do not modify the preprinted certification statement of authority on FAA Form 8430-18.

F. Certificate Number. Obtain the certificate number from the Aviation Data Systems Branch (AFS-620) in accordance with Volume 2, Chapter 1, and enter it in the space provided on the form. For more information on Air Carrier Certificates, see Volume 2, Chapter 2, Section 2.

G. Effective Date. Enter the date that all the requirements for certification were met in the space provided for certificate effective date. Retain the date of original issuance on the amended certificate if there is a change in the address or the CHDO. A change of name to the air operator or a change in the certification statement of authority has the effect of a new certification. Therefore, issue a new certificate and certificate number. For this situation, enter the issuance date of the new certificate in the space provided.

H. CHDO Designator. Enter the designator of the region and CHDO on the "Issued at" line on the form.

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I. Signature/Title. The district office manager signs the Operating Certificate issued to a part 125, 133, or 137 air operator and part 135 air carriers complying with on-demand rules on the line provided. The Regional Flight Standards Division Manager (RFSDM) signs the Air Carrier Certificates issued to air carriers conducting part 121 operations or part 135 commuter operations. Enter the full title of the person signing the certificate in the space provided.

J. Region/Office Block (FAA Form 8430-18). When the RFSDM signs the certificate, enter the full name of the region in the "Region/Office" space (e.g., Southwest Region). When the Flight Standards District Office (FSDO) manager signs the certificate, enter the full name of the region and FSDO acronym and number in the "Region/Office" space (e.g., Southwest Region, FSDO-18).

2-73 CHANGES TO CERTIFICATE NUMBER.

A. Change of Name. A change of the certificate holder's legal name without a change of ownership does not require a new certificate number. However, principal inspectors (PI) and aviation safety inspectors (ASI) must ensure the certificate holder is not using the name change to circumvent initial certification requirements.

1) Legal Authorization. The certificate holder must provide evidence that the appropriate state or local government (as applicable) authorized the change of a legal name.

2) Sole Proprietor. Do not treat a sole proprietor, who incorporates under state law, as a name change only. Once incorporated, a sole proprietor is considered to be a "new" person who must meet all the initial certification requirements of 14 CFR in order to receive an Operating Certificate.

B. Change in Ownership. Except where repair stations are concerned, changes in ownership may require a change in certificate number. For information related to repair stations, see Volume 2, Chapter 11, Section 2. For more information related to changes in ownership, see Volume 3, Chapter 34, Section 3.

C. Prepare the Certificate. When the PI or ASI is ready to prepare the new certificate, contact AFS-620 via the established correspondence mailbox and provide an explanation of the change, along with copies of the associated documentation.

2-74 INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) STANDARDIZED, CERTIFIED TRUE COPY OF THE AIR OPERATOR CERTIFICATE (AOC).

A. Amended Annex 6 Requirements. Annex 6 requires air carriers to carry onboard their aircraft a standardized, certified true copy of their AOCs when operating internationally.

B. FAA Role. To enable certificate holders to fulfill this ICAO requirement, the FAA made an ICAO-standardized AOC available as Template A999 in the Web-based Operations Safety System (WebOPSS). (See Figure 2-9A for a sample of Template A999.) Preload most of the data contained in the AOC from operator data already maintained in the WebOPSS.

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The principal operations inspector (POI) or the certificate holder must enter additional data specific to the AOC. This standardized ICAO AOC is in addition to the FAA Operating Certificate or Air Carrier Certificate. For compliance with Annex 6, operators must carry this ICAO AOC onboard their aircraft when operating internationally.

C. Certified True Copy. Annex 6 also requires that the copy carried onboard the aircraft is a "certified true copy" of the original. Template A999 contains a certification statement that the FAA will digitally sign. See subparagraph 2-74D.

D. Procedure.

1) After January 1, 2010, certificate holders who fly or intend to fly internationally must request and receive Template A999 in the WebOPSS from their POIs. When the POI receives such a request, the POI should:

- Work with the certificate holder to properly fill out the template,
- Verify that the information in Template A999 is correct, and
- Sign and issue Template A999 in the WebOPSS.

2) The certification statement fulfilling the ICAO requirements is a certified true copy when the POI digitally signs and issues Template A999 in the WebOPSS.

3) When operating internationally, ICAO requires an air carrier to carry a certified true copy of the AOC onboard his or her aircraft. The certificate holder may print a copy for each aircraft he or she operates internationally and place it onboard or, if the air carrier has the capability, carry it electronically onboard so that it is accessible to a foreign Civil Aviation Authority (CAA) during an inspection.

4) If any information contained on the ICAO-standardized AOC changes, the certificate holder will need to work with his or her POI to update the data in Template A999, print new copies, and, if necessary, have the FAA sign the certification statement.

2-75 TASK OUTCOMES. Completion of this task results in one of the following:

- Assignment of a precertification and final certificate number to a part 125 operator;
- Assignment of a final certificate number to a 14 CFR part 121, 133, 135, 137, 141, 142, 145, or 147 air agency or operator; or
- Assignment of a designator to a part 125 deviation holder.

2-76 FUTURE ACTIVITIES. See related certification chapters.

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Figure 2-5. FAA Form 8000-4, Air Agency Certificate

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Agency Certificate

Number **(Enter cert. # obtained from AFS-620)**

This certificate is issued to
(Enter name of school)
whose business address is
(Enter address of main base of operations)
upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, and is empowered to operate an approved **(Enter the appropriate kind of school)**
with the following ratings:
(List all the ratings the pilot school or provisional pilot school is authorized for)

SAMPLE

This certificate, unless canceled, suspended, or revoked, shall continue in effect **(Date 24 calendar-months from date of issuance)**

By direction of the Administrator

Date issued:

(MMM DD, YYYY) **(Have district office manager sign)**

This Certificate is not Transferable, AND ANY MAJOR CHANGE IN THE BASIC FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE APPROPRIATE REGIONAL OFFICE OF THE FEDERAL AVIATION ADMINISTRATION

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both

FAA Form 8000-4 (1-67) SUPERSEDES FAA FORM 390. AFS Electronic Forms System - v2.2

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Figure 2-5A. FAA Form 8000-43, Training Center Certificate

U.S. Department of Transportation
Federal Aviation Administration

Training Center Certificate

Number:

This certificate is issued to

whose primary business address is

Upon finding that its organization complies in all respects with the requirements of the Federal Aviation Regulations relating to the establishment of an Air Agency, is empowered to operate an approved Training Center in accordance with the Training Specifications issued herewith, and may conduct training courses with respect to the following Parts of the Federal Aviation Regulations:

This certificate unless amended, suspended, or revoked, shall continue in effect indefinitely.

By Direction of the Administrator

Date issued _____ _____

Issuing Officer _____ _____

THIS CERTIFICATE IS NOT TRANSFERABLE, AND ANY MAJOR CHANGE IN THE APPROVED FACILITIES, OR IN THE LOCATION THEREOF, SHALL BE IMMEDIATELY REPORTED TO THE RESPONSIBLE FLIGHT STANDARDS DISTRICT OFFICE.

Any alteration of this certificate is punishable by a fine not exceeding $1000, or imprisonment not exceeding 3 years, or both.

FAA FORM 8000-43 (11-95) NSN: 0052-03-917-8003

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Figure 2-6. FAA Form 8430-18, Air Carrier Certificate

U.S. Department
of Transportation

Federal Aviation
Administration

Air Carrier Certificate

This certifies that

has met the requirements of the Federal Aviation Act of 1958, as amended, and the rules, regulations, and standards prescribed thereunder for the issuance of this certificate and is hereby authorized to operate as an air carrier and conduct common carriage operations in accordance with said Act and the rules, regulations, and standards prescribed thereunder and the terms, conditions, and limitations contained in the approved operations specifications.

This certificate is not transferable and, unless sooner surrendered, suspended, or revoked, shall continue in effect indefinitely.

By Direction of the Administrator

Certificate number _____ _____ *(Signature)*

Effective date _____ _____ *(Title)*

Issued at _____ _____ *(Region/Office)*

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Figure 2-7. FAA Form 8430-21, Operating Certificate for Intrastate Common Carriage

U.S. Department
of Transportation

**Federal Aviation
Administration**

OPERATING CERTIFICATE

This certifies that

(Enter Intrastate Common Carriage Company Name)
(Enter Address of Principal Base of Operations)

has met the requirements of the Federal Aviation Act of 1958, as amended, and the rules, regulations, and standards prescribed therein for the issuance of this certificate and is hereby authorized to operate as an Air Operator and conduct

Intrastate Common Carriage Operations

in accordance with said Act and the rules, regulations, and standards; *and the terms, conditions, and limitations contained in the approved operations specifications*

This certificate is not transferable and, unless canceled, suspended, superseded, or revoked, shall continue in effect *indefinitely* .

By Direction of the Administrator

Certificate number: _____

Effective date: _____

Issued at: _____

_____
(Signature)

_____
(Title)

FAA Form 8430-21

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Figure 2-8. FAA Form 8430-21, Operating Certificate for Private Carriage

U.S. Department
of Transportation

**Federal Aviation
Administration**

OPERATING CERTIFICATE

This certifies that

(Enter Private Carriage Company Name)
(Enter Address of Principal Base of Operations)

has met the requirements of the Federal Aviation Act of 1958, as amended, and the rules, regulations, and standards prescribed therein for the issuance of this certificate and is hereby authorized to operate as an Air Operator and conduct

Private Carriage Operations

in accordance with said Act and the rules, regulations, and standards; *and the terms, conditions, and limitations contained in the approved operations specifications*

This certificate is not transferable and, unless canceled, suspended, superseded, or revoked, shall continue in effect *indefinitely* .

By Direction of the Administrator

Certificate number: _____ _____ *(Signature)*

Effective date: _____ _____ *(Title)*

Issued at: _____

FAA Form 8430-21

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Figure 2-9. FAA Form 8430-21, Operating Certificate

US Department of Transportation
Federal Aviation Administration

Operating Certificate

This certifies that

MID-CONTINENTAL HELICOPTER, INC.
d/b/a
Verti-Flite
1234 Avalon Avenue
San Francisco, CA 95123

has met the requirements of the Federal Aviation Act of 1958, as amended, and the rules, regulations, and standards prescribed therein, for the issuance of this certificate and is authorized to operate as an Air Operator and conduct

Rotorcraft External-Load Operations

In accordance with said Act and the rules, regulations, and standards; and the terms, conditions, and limitations contained in the approved operations specifications. Classes A, B, C, and D loads are authorized.

This certificate is not transferable and, unless canceled, suspended, superseded, surrendered or revoked, shall continue in effect until March 31, 1997.

By Direction of the Administrator

Certificate number: RWI-L-001-A

Effective Date: March 10, 1995

Issued at: WP03, San Francisco, CA

(Signature)

Manager, AWP-FSDO-03
(Title)

FAA Form 8430-21 (6-87)

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Figure 2-9A. Sample Template A999, Air Operator Certificate (AOC) in the ICAO Format

<table>
<tr><th colspan="3">AIR OPERATOR CERTIFICATE</th></tr>
<tr><td rowspan="2">[3]</td><td>State of the Operator[1]
United States of America</td><td rowspan="2">[3]</td></tr>
<tr><td>Issuing Authority[2]
Federal Aviation Administration</td></tr>
<tr><td>AOC #:[4]</td><td rowspan="4">Operator Name[6]
DBA Trading Name[7]
Operator Address:[9]

Telephone:[10]
Fax:
Email:</td><td rowspan="4">Operational Points of Contact:[8]
Contact details, at which operational management can be contacted without undue delay, are listed in _____[11].</td></tr>
<tr><td></td></tr>
<tr><td>Expiry Date:[5] None</td></tr>
<tr><td></td></tr>
<tr><td colspan="3">This certificate certifies that _____[12] is authorized to perform commercial air operations, as defined in the attached operations specifications, in accordance with the Operations Manual and the _____[13].</td></tr>
<tr><td>Date of Issue:[14]</td><td colspan="2">Name:[15]
Title:</td></tr>
</table>

CERTIFICATION STATEMENT

I hereby certify that the attached is a true copy of the *[title of the AOC]* issued at *[place]* on *[date]* by the FAA.

Signed at *[place]* on *[date]*

[Digital signature of FAA official]
[Title]

---

1. Issued by the Federal Aviation Administration.
2. Support information reference:
3. These Operations Specifications are approved by direction of the Administrator.
4. Date Approval is effective:_____ Amendment Number:_____
5. I hereby accept and receive the Operations Specifications in this paragraph.

Date:

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Notes:
1. Auto-filled.
2. Auto-filled.
3. Reserved for future use.
4. Unique AOC number: this is the operator's FAA certificate number.
5. Auto-filled.
6. Insert the operator's registered name.
7. Operator trading name, if different. Insert "DBA" before the trading name (for "doing business as").
8. The contact details include the telephone and fax numbers, including the country code, and the email address (if available) at which operational management can be contacted without undue delay for issues related to flight operations, airworthiness, flight and cabin crew competency, dangerous goods, and other matters, as appropriate.
9. Operator principal place of business address.
10. Operator principal place of business telephone and fax details, including the country code. Provide email, if available.
11. Insertion of the controlled document, carried onboard, in which the contact details are listed with the appropriate paragraph or page reference. For example: "Contact details… are listed in the Operations Manual, Gen/Basic, Chapter 1, 1.1" or "… are listed in the Operations Specifications, page 1," or "… are listed in an attachment to this document."
12. Operator registered name.
13. Insert "14 CFR."
14. Issuance date of the AOC (dd-mm-yyyy).
15. Title and name of the authority representative. An official digital signature stamp is applied to the certification statement on the AOC.

RESERVED. Paragraphs 2-77 through 2-100.

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VOLUME 2 AIR OPERATOR AND AIR AGENCY CERTIFICATION AND APPLICATION PROCESS

CHAPTER 8 CERTIFICATION OF A PART 137 OPERATOR

Section 4 Restricted Category Agricultural Airplanes

2-1046 OBJECTIVE. This section contains general information concerning Title 14 of the Code of Federal Regulations (14 CFR) Part 137, Agricultural Aircraft Operations.

2-1047 DEFINITIONS.

A. Hopper. Container within the airplane structure to hold the aerially dispensed products.

B. Spray Boom. Length of pipe or tubing of variable size or shape, depending upon the system and the particular application.

C. Spreader. Systems attached to the fixed points of the airplane, under the hopper, which dispense dry agricultural chemicals and seed.

NOTE: The spreader includes its associated gate box.

2-1048 CIVIL AIR REGULATIONS (CAR) 8/CIVIL AERONAUTICS MANUAL (CAM) 8. Pertinent parts of the preamble to CAR 8/CAM 8 state that the CARs provide for the type and airworthiness certification of aircraft built or modified for special purposes (e.g., crop dusting, seeding, and spraying). As stated in the preamble to CAR 8, the requirements in effect at the time established an appropriate level of safety for passenger-carrying aircraft, but imposed an unnecessary economic burden and were unduly restrictive for the manufacture and operation of small agricultural aircraft. These aircraft are intended for use in rural, sparsely settled areas outside the usual lanes of air transportation. For restricted category operations, where public safety is not in danger, it appears unreasonable to require the same level of safety as that required for passenger-carrying aircraft. Therefore, a change to CAR 8/CAM 8 eliminated the “equivalent level of safety” provision for restricted category aircraft. It should be noted that nothing in CAR 8 was intended to contradict the statutory requirement that the Administrator must find that the airplane is of proper design, material specifications, construction, and performance for safe operation. CAR 8 is intended to provide the greatest possible flexibility of administration and to place the minimum possible burden consistent with public safety on the applicant for certification in the restricted category.

NOTE: The part of CAR 8 which provided the procedures for the type certification of restricted category aircraft was recodified as 14 CFR part 21, § 21.25. That section currently provides type certification procedures for restricted category airplanes.

A. Small Agricultural Airplanes. The current edition of Advisory Circular (AC) 20-33, Technical Information Regarding Civil Aeronautics Manuals 1, 3, 4a, 4b, 5, 6, 7, 8, 9, 13, and 14, states that CAM 8 may be used in conjunction with §§ 21.25, 21.185, and 21.187 for

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restricted category certification of small agricultural airplanes only. The material in CAM 8 may only be used for small agricultural airplanes in the following situations:

1) For alterations made to small airplanes originally type-certificated (TC) under CAR 8. The guidance materials in CAM 8 are applicable, but only for those alterations where the CAM 8 guidance material is appropriate.

2) For alterations made to small airplanes originally TC'd under 14 CFR parts 21 and 23. The material in CAM 8 may be used as guidance material to assist in showing compliance with part 23, but only for those alterations where the CAM 8 material is appropriate and is not in conflict with the intent of part 23 requirements.

NOTE: The term "appropriate," when used in discussing requirements, means those requirements address a specific feature of a type design, and can be used to evaluate the safety aspect of that feature.

B. Gross Weight Increases. CAM 8 sets forth acceptable procedures and practices for guidance, including appendixes A and B, for those airplanes which were certificated under CAR 8. The use of CAM 8 in approving gross weight increases has only been appropriate for airplanes if CAR 8 was used as part of the certification basis. For airplanes certificated under parts 21 and 23, CAM 8 may be considered to contain acceptable methods of complying with the regulations as the basis for a field approval, if the information is not contrary to the airplane's certification basis or the manufacturer's requirements.

C. Alterations. Alterations approved for an airplane can be installed on other airplanes of the same make and model, provided:

1) The airplanes are owned by the individual that originally obtained the approval.

2) The installer finds that the alteration does not interfere with any previously approved alteration on that specific airplane.

NOTE: Subsequent alterations will be considered minor alterations when performed by the owner on his or her own aircraft. The owner must remove this system when the aircraft is sold or transferred and an appropriate entry must be made in the aircraft's records.

D. Spreader and Spray Boom Systems Installation and Removal. The initial installation of either a spreader or spray boom is considered a major change and requires FAA approval. That approval can be attained as part of the original TC, an amended TC, a Supplemental Type Certificate (STC), or a field approval. Spreader and spray boom systems removal and installation are not addressed in CAM 8 or in the 14 CFR part 43 appendixes. Once FAA approval has been obtained for more than one configuration, changing from one configuration to another is a service requirement; therefore, it does not constitute maintenance and does not require record entries. However, these system changes or reconfigurations should not include changes to structural attachments or the permanently installed equipment of the airplane.

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E. Changing From One Configuration to Another. Changing from one configuration to another can be accomplished by the operator as long as it is done in accordance with conversion instructions covering the installation and removal of the components or equipment. These instructions are normally prepared during the original approval of the installation, but must be developed by the operator if not accomplished at that time. The operator is also responsible for properly training those persons servicing the aircraft.

2-1049 FIELD APPROVALS. The inspector should consider alterations to agricultural aircraft that require FAA approval on an individual basis. The inspector should consider the following information:

A. Acceptability of CAM 8. CAM 8 is acceptable only when the requirements are appropriate for alterations of small agricultural airplanes that used CAR 8 as the original certification basis. CAM 8 and its appendixes A and B should be referenced by specific application to the requested modification. The CAM 8 guidance, along with any pertinent data, can be used to complete the field approval process.

NOTE: The guidance material in CAM 8 may be used to assist in showing compliance with part 23 for small agricultural airplanes only, but only when the guidance material is not in conflict with the requirements of part 23.

B. Eligibility Exceptions. Conversion from reciprocating to turbine/turboprop engines is not allowed under the field approval process.

2-1050 RECORDKEEPING. With regard to all references to Form ACA 337 (now FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance)) stated in CAM 8, the standard procedures outlined in the current edition of AC 43-9, Maintenance Records, should be used to fill out FAA Form 337. Other information, such as flight test and Weight and Balance (W&B), will be recorded in the aircraft maintenance records.

RESERVED. Paragraphs 2-1051 through 2-1065.

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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 13 LEASE AND INTERCHANGE AGREEMENTS

Section 2 Information for Air Carrier Lease Agreements

3-421 BACKGROUND AND DEFINITIONS.

A. Background. Economic deregulation of the U.S. air transportation industry and increasing international cooperation between the United States and other governments working through bilateral and multilateral agreements have resulted in greater numbers of aircraft lease and interchange agreements. These agreements are widely used to meet certain market demands and seasonal fluctuations in both the domestic and global air transportation systems.

B. Definitions. The Federal Aviation Act of 1958 (FA Act) and Title 14 of the Code of Federal Regulations (14 CFR) do not contain definitions of the terms lease, lessee, lessor, dry lease, or interchange. For the purpose of standardization concerning surveillance and compliance with applicable 14 CFR requirements, the following definitions apply to lease and interchange agreements:

1) Lease. Any agreement by a person (the lessor) to provide an aircraft to another person (the lessee) who will use the aircraft for compensation or hire purposes. A lease is not an agreement for the sale of an aircraft or a contract of conditional sale under section 101 of the FA Act.

2) Dry Lease. Any agreement in which a lessor such as an air carrier, bank, or leasing company leases an aircraft without any crewmembers to an air carrier (the lessee) and in which the lessee maintains operational control.

3) Wet Lease. Any agreement in which a U.S. air carrier (the lessor) leases an aircraft with at least one crewmember to either a U.S. air carrier, foreign air carrier, or a foreign person (the lessee). A wet lease requires that a written agreement between the lessor and the lessee be executed by authorized officers of the two parties. Either a copy of the lease agreement or a written memorandum of the terms of the lease agreement must be provided to the Administrator.

4) Interchange Agreement. Any agreement in which the operational control of an aircraft is transferred for short periods of time from one air carrier to another air carrier and in which the latter air carrier assumes responsibility for the operation of the aircraft at the time of transfer.

5) Operational Control, Operation of Aircraft, or Operate Aircraft. As defined in section 101(31) of the FA Act, means the use of aircraft for the purpose of air navigation and includes the navigation of aircraft. Any person who causes or authorizes the operation of aircraft, with or without the right of legal control (in the capacity of owner, lessee, or otherwise) of the aircraft, shall be considered to be engaged in the operation of aircraft. “Operational control” and “operate” with respect to aircraft are also defined in 14 CFR part 1, § 1.1.

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NOTE: Determination of operational control for wet leases rests with the Federal Aviation Administration (FAA) and shall be made in accordance with 14 CFR part 119, § 119.53. Notwithstanding the preceding sentence and the definition of wet lease, in any wet lease by any U.S. air carrier to any foreign air carrier, the U.S. air carrier shall retain operational control.

RESERVED. Paragraphs 3-422 through 3-440.

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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 3 Part A Operations Specifications—General

3-736 DISCUSSION. This section and sections 4, 5, and 6 of Volume 3, Chapter 18, discuss each standard template available for issuance by the automated Operations Safety System (OPSS), also known as the Web-based Operations Safety System (WebOPSS). These templates are more commonly referred to as "paragraphs." The standard paragraphs discussed in this order are limited to operations in accordance with Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (91K), 121, 125 (including Letter of Deviation Authority (LODA) holders (125M)), 135, and 145.

A. Definition of OpSpecs. The standard paragraphs for parts 121, 125, 135, and 145 are called operations specifications (OpSpecs).

B. Definition of MSpecs. The standard paragraphs for part 91K are called management specifications (MSpecs).

C. Definition of LOAs. The standard paragraph for part 91 and 125M are called letters of authorization (LOA).

D. Other Source Documents. References are provided to other sections of this handbook, to advisory circulars, or other applicable documents that discuss detailed requirements for certain standard paragraphs.

E. Ensure Complete Review. Before issuing a standard paragraph, any specific requirements specified by this order or the referenced material (relative to the paragraph being issued) must be met. Before reading the following sections for the first time, review the applicable paragraphs available in the OPSS for the specific regulation.

F. Applicability of Paragraphs. There are some standard paragraphs that are required to be issued to all operators for a specific regulation. There are standard paragraphs that are optional and only issued when the operator is specifically authorized to conduct those operations.

NOTE: All 300-series and nonstandard 500-series OpSpecs/MSpecs/training specifications (TSpecs)/LOAs (Parts A, B, C, D, E, and H) require approval by the appropriate headquarters (HQ) policy division. Title 14 CFR parts 61, 91, 91K, 125 (including part 125 LODA holders), 133, 137, and 141 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Title 14 CFR parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). Parts 121, 135, and 14 CFR part 145 repair stations and all airworthiness nonstandard requests must be approved by the Aircraft Maintenance Division (AFS-300). All Weather Operations (AWO) relating to instrument procedures must be approved by the Flight Technologies and Procedures Division (AFS-400) and AFS-200 or AFS-800, as appropriate.

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Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from the International Programs and Policy Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec or LOA through the use of nonstandard text entered in the nonstandard text block (sometimes referred to as "Text 99") must also be approved by the appropriate HQ policy division. For detailed guidance on the process for obtaining HQ approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

3-737 PART A OPERATIONS AND MANAGEMENT SPECIFICATIONS PARAGRAPHS.

OPSPEC/MSPEC A001—ISSUANCE AND APPLICABILITY.

A. General. A001 identifies the OpSpec/MSpec holder. The name must be the legal name of the operator. A001 also specifies the kinds of operations authorized, the applicable regulatory sections under which the operations are to be conducted, and any other business names under which the operations are being conducted. See the new OPSS user's manual for additional guidance to issue A001. Figure 3-4 is a summary of the information required in OpSpec/MSpec A001.

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Table 3-4. Summary of Information Required in OpSpec/MSpec A001

Type of Certificate	**Any of the following may apply:**	**Type of Carriage:**	**Regulation Reference:**	**Economic Authority** **Text to be inserted:**
Air Carrier	Domestic	Common	119.21(a)(1) (Part 121)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	Flag	Common	119.21(a)(2) (Part 121)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	Supplemental Passenger (more than 60 pax and/or >18,000# payload)	Common	119.21(a)(3)(i) (Part 121)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	Supplemental All Cargo	Common	119.21(a)(3)(ii) (Part 121)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	Commuter (5+ trips/week)	Common	119.21(a)(4) (Part 135)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	On Demand (less than 5 round trips/week)	Common	119.21(a)(5) (Part 135)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Operating	Flight (Part 125)	Private Non Common	119.23(a) (Part 125)	and provided the certificate holder does not conduct any operation which results directly or indirectly from the certificate holder or any other person holding out to the public to provide for the carriage of person or property.

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Type of Certificate	**Any of the following may apply:**	**Type of Carriage:**	**Regulation Reference:**	**Economic Authority** **Text to be inserted:**
Operating	On Demand (nonscheduled)	Private _____ Non Common	119.23(b) (Part 135) Ltd. to holding out to public _____ # of Contracts (Definitions) 119.23(b)(3)	and provided the certificate holder does not conduct any operation which results directly or indirectly from the certificate holder or any other person holding out to the public to provide for the carriage of person or property.
Air Carrier	Commuter Rotorcraft	Common	119.25(a)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
Air Carrier	On Demand Rotorcraft	Common	119.25(b)	and provided, at all times, the certificate holder has written economic authority issued by the Department of Transportation.
None	Fractional	Non Common	Part 91K	None.

B. Authorization. A001 authorizes the conduct of operations under other business names known as “doing business as” (DBA). If no operations are authorized to be conducted under another DBA, the statement selected will state that “the operator is authorized to use only the business name which appears on the certificate to conduct the operations described in subparagraph a.” Other DBAs authorized under 14 CFR parts 215 or 298 must be listed in OpSpecs. Before listing a DBA in an operator’s OpSpecs or entering a DBA in an Air Oper Enhanced Vital Information Database (eVID) file, inspectors must verify that the DBA is on file with DOT or an appropriate state agency. This verification can be accomplished by one of the following means:

1) The operator shows that the DBA is listed on a DOT registration (proof of insurance);

2) The operator shows that the DBA is listed on a DOT certificate of public convenience and necessity;

3) The operator shows that the DBA is authorized by a DOT order or other DOT document;

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4) When the operator claims the DBA is on file with the DOT, verification must be made by contacting the DOT Office of Aviation Analysis, Air Carrier Fitness Division, (202) 366-9721; or

5) When an "operating certificate" is involved, the operator shows that the DBA is authorized and registered by an appropriate state authority.

6) DBAs can apply to 14 CFR part 91 subpart K, but they do not have economic authority requirements.

C. Part 145. For part 145 repair stations, A001 lists the:

- Location,
- Mailing address (if different from the fixed location),
- Other DBAs (see subparagraph B above) if authorized, and
- Any delegated authorities.

OPSPEC/MSPEC A002—DEFINITIONS AND ABBREVIATIONS. A002 includes definitions of words or phrases used in other paragraphs. These definitions are not found in the regulations and should enhance understandings between the FAA and the aviation industry. Washington headquarters developed definitions must not be changed by regional or district offices. Washington headquarters will add definitions when it becomes apparent that they are needed. Addition of a definition by a certificate-holding district office (CHDO) makes the whole paragraph nonstandard and must be processed as a nonstandard OpSpec/MSpec request.

OPSPEC/MSPEC A003—AIRPLANE/AIRCRAFT AUTHORIZATION. OpSpec/MSpec A003 authorizes an operator or certificate holder to use specific make, model, and series (M/M/S) of airplanes in 14 CFR part 91 subpart K (part 91K), 121, 125, or 135 operations. A003 is populated with data from the "Maintain Operator Data—Aircraft" area of the automated Operations Safety System (OPSS). The only field that is populated within the A003 template is nonstandard text. If this field is used, the additional text must be coordinated and approved in accordance with Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713. In most cases, the A003 column labels match the data column labels in the "Maintain Operator Data—Aircraft" area of the OPSS. In contrast to OpSpec A001, OpSpec A003 does not identify the air carrier's overall authority to conduct a particular kind of operation. Instead, it represents the FAA's approval of the air carrier's use of a particular airplane in carrying out the kinds of operations that are authorized. The column labeled "Type Section 119" reflects the 14 CFR part 119 operating authorization granted by the certificate holder's Air Carrier/Operating Certificate. Volume 2, Chapter 2, Section 2, paragraph 2-129 explains the hierarchy of part 119 authorizations. The rest of the set of OpSpecs are then put into place to authorize the air carrier to conduct specific types of operations in accordance with the authorizations and airplane identified in A001 and A003. The following provides terminology clarification and guidance on both the "A003" and the OPSS "Maintain Operator Data—Aircraft" columns. A003 templates do not use every data column available in the OPSS "Maintain Operator Data—Aircraft" area. A003 column usage will vary across 14 CFR parts. Each A003 has its columns organized to meet the needs of the 14 CFR part. The column descriptions below are not all-inclusive and, therefore, not

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every column in every A003 template is described. The columns that are not described are self-explanatory.

A. M/M/S: Parts 91K, 121, 125, and 135. Select the authorized M/M/S using the aircraft listing provided in the OPSS. If the appropriate M/M/S cannot be found in the OPSS, inspectors should immediately notify the OPSS help desk so that the airplane listing can be updated.

B. Type of Part 119 Common Carriage Operations. For each aircraft, list the type of operation authorized. This is accomplished in the OPSS "Maintain Operator Data—Aircraft" area. The authorization is aircraft specific. In some cases, more than one part 119 type of operation may be required for an M/M/S. When A003 is generated, the data from the OPSS "Maintain Operator Data—Aircraft" are loaded into the appropriate A003 columns. Part 119 section selections in the OPSS "Maintain Operator Data—Aircraft" area are part 119-specific for each 14 CFR part. Examples of part 119 section selections for parts 121, 125, and 135 include the following:

1) Selections available for part 121:

- Section 119.21(a)(1)—Domestic (D),
- Section 119.21(a)(2)—Flag (F),
- Section 119.21(a)(3)—Supplemental (S), and
- Section 119.21(a)(1), (2), (3)—(D) (F) & (S).

NOTE: In the cases where more than one type of part 121 operation is authorized for a particular airplane, the certificate holder/principal operations inspector (POI) should select "119.21(a)(1), (2), (3)—(D) (F) & (S)" in the column labeled "Type Section 119." For example, an air carrier who operates a DC-9-82, N12121, in both domestic and international operations (lower 48 states and Canada), the certificate holder/POI should select "119.21(a)(1),(2),(3)—(D) (F) & (S)."

2) Selections available for part 125/125M (Letter of Deviation Authority (LODA)):

- Section 119.23(a)—Private Carriage (Noncommon Carriage), and
- Section 119.23(a)—125M LODA (When Common Carriage is Not Involved).

3) Selections available for part 135:

- Section 119.21(a)(4)—Commuter,
- Section 119.21(a)(5)—On-Demand,
- Section 119.23(b)—Private Carriage (Noncommon Carriage),
- Section 119.25(a)—Rotorcraft Commuter, and
- Section 119.25(b)—Rotorcraft On-Demand.

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C. Passenger Seating Terminology for Parts 121 and 125.

1) Passenger seating terminology is derived from and associated with the emergency evacuation demonstrations requirements of 14 CFR part 25, § 25.803; part 121, § 121.291(a) and (b); and part 125, § 125.189. These terms are also consistent with the guidance in Volume 3, Chapter 30.

2) For the purposes of parts 121 and 125 emergency evacuation demonstration requirements, the terms "capacity" and "configuration" have the same meaning with respect to passenger seating. An airplane with a seating capacity of more than 44 passengers requires a demonstration of emergency evacuation procedures in accordance with § 121.291 or § 125.189.

3) "Certificated seats," as referenced in A003, is a term derived from the emergency evacuation certification requirements of § 25.803. This requirement establishes, by actual demonstration, the maximum certificated seating capacity of the airplane. Volume 3, Chapter 30, Section 9 includes Table 3-121, Maximum Approved Passenger Seating Capacity For Transport, which lists the maximum seating capacity for airplanes typically used in air carrier service. This list is to be considered the primary source document for Flight Standards Service (AFS) inspectors when determining maximum seating capacities. The listed maximum seating capacity values are derived from the airplane Type Certificate Data Sheets (TCDS).

4) "Demonstrated seats" is the number of seats installed in the airplane at the time the certificate holder complied with § 121.291(a) or (b), or § 125.189(a) and (b). This seating configuration will determine the number of Flight Attendants (F/A) required by § 121.391 or § 125.269.

5) "Installed seats" refers to the actual seating configuration of the individual airplane.

NOTE: For part 135 OPSS data entry, "certificated seats" refers to the maximum seating capacity stated in the aircraft TCDS, which includes pilot seats. "Installed seats" are passenger seats actually installed in the individual aircraft. Office of the Secretary of Transportation (OST) Form 4507, Air Taxi Operator Registration and Amendments under Part 298 of the Regulations of the Department of Transportation, requires the applicant to list the passenger seats installed for the aircraft make and model. This does not include seats occupied by the pilot or co-pilot, unless the latter is available for passenger use. OPSS data feeds the 14 CFR part 298 insurance registration and coverage module from "Maintain Operator Data—Aircraft" for certificated seats only.

6) All-cargo operations allow only passengers as defined in § 121.583(a) and part 135, § 135.85. For all-cargo operations, the number "0" shall be entered into the columns labeled "Certificated Seats," and "Demonstrated Seats."

7) In passenger/cargo operations, the passenger seating guidance in subparagraphs 3-737C1) through 4) apply.

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D. Number of F/As: Parts 121 and 125. Enter the number of F/As used during the certificate holder's emergency evacuation demonstration required by § 121.291 or § 125.189 for each airplane listed.

E. F/A: § 135.107. In the OPSS "Maintain Operator Data—Aircraft, Flight Attendant" column enter the F/A requirement for each airplane. If the airplane is configured with more than 19 passenger seats, enter the number "1." If the passenger seating configuration is 19 seats or fewer, enter the number "0." There is not a "Number of Flight Attendants" column associated with OpSpec A003 for part 135.

F. Class of Operation. Enter the appropriate class of operation for each airplane listed. Enter only one class of operation for each airplane. The classes of operations are: Single-Engine Land (SEL), Single-Engine Sea (SES), Multiengine Land (MEL), Multiengine Sea (MES), and helicopter (HEL).

G. Type of Operation. Enter the appropriate en route flight rule for each airplane. If the airplane is approved for instrument flight rules (IFR) operations, enter "IFR/VFR" in the column labeled "En Route Flight Rule." Part 121 operations are required to conduct operations in IFR. If the airplane is restricted to visual flight rules (VFR) operations only, select "VFR Only." Select the day/night condition for each airplane. If the airplane is approved for both day and night conditions, select "Day/Night" in the column labeled "Condition." If the airplane is approved for daylight conditions only, select "Day Only."

OPSPEC/MSPEC A004—SUMMARY OF SPECIAL AUTHORIZATIONS AND LIMITATIONS.

A. Purpose. This paragraph summarizes optional authorizations applicable to a particular operator.

B. Part 145. For part 145 repair stations, this paragraph summarizes special (optional) authorizations and/or limitations applicable to the certificate holder. The OPSS application extracts the specific paragraphs that authorize a specific activity; it provides a summary of the authorized activity and reference number of the specific paragraph.

OPSPEC/MSPEC A005—EXEMPTIONS AND DEVIATIONS. In order for an operator to conduct operations under the provisions of any exemption or deviation, the exemption or deviation must be listed in A005.

A. Exemptions. The current exemption number and expiration date must be selected for insertion into A005. List the exemption numbers in numerical order. Enter a brief description of the exemption or, if appropriate, the exempted regulations in the space labeled Remarks and/or References (adjacent to each exemption). If certain conditions or limitations related to the exemption are specified in another paragraph of the OpSpec, the reference number of the other paragraph must also be entered in this space. For example, if a single high frequency (HF) radio is permitted by exemption in certain areas of en route operation, insert a reference to OpSpec B050 (see paragraph B050). In this example, the appropriate areas of en route operation in B050 should contain a note authorizing the provisions of that exemption for those areas.

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B. Deviations. Enter the applicable 14 CFR sections to which a deviation has been granted in A005b. Select the applicable deviations by 14 CFR section. In the space labeled Remarks and/or References (adjacent to each deviation), briefly describe the provisions of the deviation. For example, if an operator is granted a deviation to permit the same person to serve as director of operations and director of maintenance, list the applicable 14 CFR. In the Remarks and/or Reference space, enter information specific to that operator or NA for "not applicable". Table 3-5 explains the standard OpSpecs paragraphs that must be referenced and issued when granting deviations in each subject area (others may also be applicable).

NOTE: There are no deviations for part 145 repair stations.

Table 3-5. Standard OpSpecs Paragraphs to Reference When Granting Deviations

SUBJECT	PARAGRAPH NUMBER	APPROPRIATE REGULATION
Management	A006	Various, depends on operating regulation, management position, and qualifications
Extended-Overwater Operations without liferafts	A013	Sections 121.339(a)(2), (3), and (4)
Basic Part 135 Operator On-Demand Operations Only	A038	Sections 119.69(b), 135.21(a), and 135.341(a)
Basic Part 135 Operator Commuter and On-Demand	A037	Sections 119.69(b), 135.21(a), and 135.341(a)
Part 135 Single Pilot-in-Command Operator	A039	Sections 119.69(b), 135.21(a), and 135.341(a)
Extended-Range Operations with Two-Engine Airplanes	B042	Sections 121.161(a)
Special Fuel Reserves in International (Flag) Operations	B043	Sections 121.645(b)(2)

OPSPEC A006—MANAGEMENT PERSONNEL.

A. Authorized Positions and Personnel. The intent of A006 is to clearly identify the operator's management personnel who are fulfilling Title 14 of the Code of Federal Regulations (14 CFR) management positions and who are responsible for managing assigned aspects of the operation. The individual assigned, their title as assigned by the operator, and the 14 CFR part 119 management position shall be noted in A006. All operators require at least one management position to be noted in A006. Single pilot and single pilot in command (PIC) operators must have a person assigned to a management position. An operator may apply for management personnel titles that differ from titles of management positions used in part 119. For example, the proprietor of a single pilot operation, who serves as the company president and pilot, must be listed as a management position, e.g., Owner.

B. Management Deviations. A006 is also used to record deviations from part 119 required experience to serve in management positions. Guidance on the evaluation and approval

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of part 119 management personnel qualifications is in Volume 2, Chapter 2, Section 3, Evaluate Part 121/135 Management Personnel. Approval for management deviations and authorizations are entered in OpSpecs A006 using the procedures below.

NOTE: For guidance and policy on part 119 vacancies and combining positions, see Volume 2, Chapter 2, Section 3.

C. Procedure to Complete A006 Template.

1) For authorizations that permit less than the required management positions, show the same individual assigned in each position required by part 119 and for which an authorization for combined positions has been approved. Where an authorization is not explicitly required (i.e., for single-pilot operators, enter “not applicable” (N/A) for other management positions.)

2) For authorizations that permit the same person to fill two or more positions, enter the same name and title of that person in each of the appropriate positions.

3) For deviations that permit a person to hold a management position when that person does not meet the regulatory experience requirements, enter the name and title of that person in the appropriate position.

4) In all cases where a deviation has been granted, list the appropriate regulatory section in OpSpec A005(c). Add the name of the individual into the conditions and limitations box of A005. When the part 119 management individual has acquired the appropriate regulatory experience, the PI shall remove the deviation from OpSpec A005.

D. Additional Information. Additional text may be added to A006 without making it nonstandard, provided the extra paragraph is used to identify additional management positions (such as more than one Chief Pilot), or to specify conditions of a management deviation, tied to the entry in A005(c). If the extra paragraph provides for anything other than the preceding, it must be processed in accordance with Volume 3, Chapter 18, Section 2, paragraph 3-713.

E. Management Vacancies Under §§ 119.65 and 119.69. Sections 119.65(e)(3) and 119.69(e)(3) state that the certificate holder must notify the certificate-holding district office (CHDO) within 10 days of any change in personnel or any vacancy in any of the required management or technical personnel position listed. For additional information see Volume 2, Chapter 2, Section 3.

OPSPEC/MSPEC A007—OTHER DESIGNATED PERSONS.

A. Template A007. In the automated Operations Safety System (OPSS), Template A007 is used for identifying each operator’s agent for service, persons designated to apply for and receive applicable authorizations, persons designated to receive Safety Alerts for Operators (SAFO) and/or Information for Operators (InFO), and other designated persons. Each Template A007 is labeled specific to the OPSS 14 CFR database:

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1) Title 14 CFR parts 121, 125, 133, 135, and 145 databases: Template A007 is labeled an operations specification (OpSpec).

2) Title 14 CFR parts 141 and 142 databases: Template A007 is labeled a training specification (TSpec).

3) Title 14 CFR part 91 subpart K (part 91K) database: Template A007 is labeled a management specification (MSpec).

4) Part 91 subpart J and part 125 subpart M databases: Template A007 is labeled a letter of authorization (LOA).

5) Title 14 CFR part 137 and other databases also have A007 templates to identify designated persons.

B. Agent for Service. An agent for service is a person or company designated by the operator upon whom all legal notices, processes and orders, decisions, and requirements of the Department of Transportation (DOT), FAA, and National Transportation Safety Board (NTSB) shall be served. Once any of these documents has been served upon the operator's agent for service, the certificate holder cannot claim (legally) that it did not receive the documents. Title 49 of the United States Code (49 U.S.C.) § 46103 requires air carriers to designate an agent for service. The name, title, and address of the agent for service must be obtained from the operator and correctly entered into the OPSS Certificate Holder's Personnel tab. This information will load into the A007 template.

C. Persons Designated to Apply for and Receive OpSpecs/TSpecs/MSpecs/LOAs. Names and titles of persons designated by the operator as authorized to apply for and receive OpSpecs/TSpecs/MSpecs/LOAs must be entered in Template A007. The "Parts" of the operator's authorizations for which the designated person is responsible must also be entered. Principal inspectors (PI) may determine that it is appropriate to have signatures of these designated persons recorded in this subparagraph.

D. Persons Designated to Receive SAFOs and/or InFOs. All A007 templates (with the exception of part 141 and 142 databases in the OPSS) are used to collect the name, email address, telephone number, and type of SAFO/InFO information that person should be sent (i.e., Operations, Airworthiness, or both). Part 141 pilot schools and part 142 training centers will not have a person designated to receive SAFOs or InFOs in Template A007. Part 145 repair stations will have a person designated to receive InFOs in Template A007. A reply message signifying receipt of the SAFO/InFO information by a designated person is not required. (Refer to the current editions of FAA Orders 8000.87, Safety Alerts for Operators, and 8000.91, Information for Operators (INFO).)

NOTE: If an operator does not have an email address, a facsimile number may be entered in the email address block.

1) A SAFO contains important safety information, often of an urgent nature, and may include recommended action. SAFO content is valuable to air carriers and other air

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operators in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.

2) Much like a SAFO, which contains critical safety information, an InFO contains valuable information for operators that should help them meet administrative requirements or certain regulatory requirements with relatively low urgency or impact on safety.

3) Government and industry have agreed on the importance of having a prompt, reliable delivery system for SAFOs and InFOs and taking advantage of email and postings at FAA public Web sites. Accordingly, they have ratified that a recipient of SAFOs and InFOs must be identified in Template A007 so that the FAA may notify an operator of a new SAFO or InFO and recommended action to be taken by the respective operators identified in each SAFO/InFO.

E. Part 91K. Part 91K fractional ownership operations must identify the specific persons in MSpec A007 as follows:

1) Agent for service for the program manager.

2) Personnel designated to apply for and receive management specifications for the program manager.

3) Point(s) of contact (POC) and required positions for those authorized a Continuous Airworthiness Maintenance Program (CAMP).

4) Voluntary Disclosure Program Personnel for part 91K only. Reference Advisory Circular (AC) 00-58, Voluntary Disclosure Reporting Program, current edition, and Volume 11, Chapter 1, Section 1.

5) Personnel designated to receive SAFOs/InFOs for the program manager.

F. Part 145 Repair Stations. List the authorized person(s) by name, title, and the paragraph of the OpSpec he/she is authorized to sign.

NOTE: Individuals' titles listed in Template A007 should match the title in the Enhanced Vital Information Database (eVID).

OPSPEC A008—OPERATIONAL CONTROL; MSPEC A008—FLIGHT MANAGEMENT.

A. General. Each 14 CFR part 121 and part 135 operator must have a system and/or procedures for the control of flight movements. The intent of A008 is to promote a mutual understanding between an operator and the FAA concerning the system and/or procedures used by that operator. Volume 3, Chapter 25, Operational Control for Air Carriers details the three basic systems and/or procedures required by parts 121 and 135. The three systems and/or procedures are as follows:

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1) Part 121 domestic and flag operations must have dispatch systems. See Volume 3, Chapter 25, Section 2, Flight Dispatch Systems and Domestic Operating Rules.

2) Part 121 supplemental operations must have flight following systems when the operator does not have an established dispatch system. See Volume 3, Chapter 25, Section 3, Part 121 Flight Release Systems and Supplemental Operating Rules.

3) Part 135 operators use flight locating procedures. See Volume 3, Chapter 25, Section 5, Title 14 CFR Part 135 Flight Locating Systems and Operating Rules.

4) MSpec A008 must describe the flight management used by the program manager to provide program control for flight operations and other procedures and policy instructions regarding program operations. This information may also be notated by reference to the appropriate manual (part 91, § 91.1029). In addition, MSpec A008 requires the program manager to give the location of the current list of fractional aircraft owners (part 91, § 91.1027).

B. Referencing With Paragraph A008. Describe or reference the system and/or procedures used by an operator in A008. It is preferable to complete A008 with references to an operator's manual or sections of an operator's manual which describe the system and/or procedures used by that operator. It is not necessary to control these references by date. Change the references only when a revision to the operator's manual makes the reference in the OpSpecs incorrect. When an operator's manual does not adequately describe the system and/or procedures used, a narrative description combined with references may be necessary. Often, it may not be appropriate to use references in this paragraph, (especially with smaller part 135 operators). In these cases narrative description may be necessary. When a narrative description is used, it should be brief but provide sufficient information so that the FAA and the operator have the same understanding about the system and/or procedures used by the operator.

C. Necessary Information for Description of Systems/Procedures. The description of the systems and/or procedures for controlling flight movement as described in the operator's manual and referenced in the OpSpecs, or as narratively described in the OpSpecs, should include the following information, as appropriate, to the kind of operation:

- Methods and procedures for initiating, diverting, and terminating flights;
- Persons or duty positions authorized to, and responsible for, exercise of operational control;
- Facilities and location of facilities used by the operator in the exercise of operational control;
- Communication systems and procedures used by the operator;
- Special coordination methods and/or procedures used by the operator to assure the aircraft is Airworthy; and
- Emergency notification procedures.

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OPSPEC/MSPEC/LOA A009—AIRPORT AERONAUTICAL DATA; MSPEC A009—AERONAUTICAL DATA.

A. General. Airport aeronautical data is required for 14 CFR parts 91, 91 subpart K (91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135 operations. In addition, there are requirements contained in part 91, § 91.103 for pilots to become familiar with airport conditions. Airport aeronautical data includes systems that are used by certificate holders, pilots, dispatchers (part 121 domestic and flag operations), and operational control personnel. Airport aeronautical data is required to determine aircraft performance capability at each airport. Principal operations inspectors (POI) authorize a certificate holder's use of airport aeronautical data in OpSpec A009. Airport aeronautical data includes, but is not limited to:

- Aeronautical charts (including navigational en route, terminal area, and instrument approach procedure charts);
- Airport and runway analysis;
- Airport Facility Directory (AFD) information;
- Aeronautical Information Publication (AIP) for foreign airports; and
- Notices to Airmen (NOTAM).

1) Part 91K Requirements. Part 91K, §§ 91.1033 and 91.1037 contain requirements that can only be met through the use of airport aeronautical data. Part 91K does not require the data to be FAA approved. However, the program manager's use and system of distribution of airport aeronautical data must be authorized in MSpec A009.

2) Part 121 Requirements. Part 121, §§ 121.97 and 121.117 require part 121 operators to have an FAA-approved system for obtaining, maintaining, and distributing airport aeronautical data.

3) Part 125 Requirements. Part 125, § 125.49 contains airport requirements that can only be met through the use of airport aeronautical data. Part 125 does not require the data to be FAA approved. However, certificate's and LODA holder's use and system of distribution of airport aeronautical data must be authorized in OpSpec/LOA A009.

4) Part 135 Requirements. Part 135, §§ 135.23(r), 135.83, 135.229 and part 135 subpart I contain requirements that can only be met through the use of airport aeronautical data. Part 135 does not require the data to be FAA approved. However, a certificate holder's use and system of distribution of airport aeronautical data must be authorized in OpSpec A009.

B. Additional Guidance. Additional guidance regarding airport aeronautical data requirements for parts 121 and 135 is contained in Volume 3, Chapter 25, Section 1. Information on NOTAM is contained in Volume 3, Chapter 26, Section 6. Information on aircraft performance data is contained in Volume 4, Chapter 3.

C. Enter Information into A009. Describe or reference the certificate holder's/program manager's system of disseminating airport aeronautical data in the text box provided in OpSpec/MSpec/LOA in A009. Include specific references to the section(s) of the certificate

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holder's/program manager's manual that contains the description of the system(s) it uses to obtain and disseminate airport aeronautical data. When the airport aeronautical data system is not described in a manual or another document, a narrative description of the system must be used to complete A009. Narrative descriptions must provide sufficient information to describe the system, and how it is used to obtain, maintain, and distribute required airport aeronautical data.

OPSPEC/MSPEC A010—AVIATION WEATHER INFORMATION.

A. General. Title 14 CFR contains general regulatory requirements for certificate holders and program managers who conduct operations in accordance with 14 CFR parts 91K, 121, and 135 to use specific sources for obtaining weather reports and forecasts. OpSpec/MSpec A010 is the method whereby the Administrator approves a certificate holder or program manager to use a particular source of aviation weather reports and forecasts, including those involving adverse weather phenomena.

B. Additional Guidance Regarding the Regulatory Requirements for Weather. Guidance regarding the specific regulatory requirements for aviation weather for parts 91K, 121, 125, and 135 can be found in Volume 3, Chapter 26, Sections 1 through 4. Guidance on which weather sources are approved by the U.S. National Weather Service (NWS) or the FAA Administrator is contained in Volume 3, Chapter 26, Section 1, paragraph 3-2048. Principal operations inspectors (POI) with oversight responsibility of these program managers and certificate or Letter of Deviation Authority (LODA) holders must review this additional guidance prior to issuing or amending OpSpec/MSpec/LOA A010.

C. Part 91K—MSpec A010. Part 91, § 91.1039 requires program managers conducting part 91K operations to use weather-reporting facilities operated by the NWS, a source approved by the NWS, or a source approved by the Administrator.

1) A010 Subparagraph a. Subparagraph a of MSpec A010 automatically authorizes the use of the NWS and sources approved by the NWS. Sources approved by the NWS can be found in Volume 3, Chapter 26, Section 1, paragraph 3-2048. These specific sources do not have to be listed in A010; however, POIs should instruct program managers to include information on NWS-approved weather sources in the Program Operations Manual in accordance with § 91.1025(n) and 91.1025(o).

2) A010 Subparagraph b. Subparagraph b of MSpec A010 contains a list from which the POI may select each weather source approved by the Administrator. Weather sources approved by the Administrator are outlined in Volume 3, Chapter 26, Section 2, Regulatory Sources of Aviation Weather Information and Aviation Weather Information Systems—Parts 91K, 121, and 135. To select a weather source, place a check mark in the appropriate box. Only the selected weather sources will display when the template is issued. If a program manager desires to use a weather source (e.g., a Commercial Weather Information Provider (CWIP)) that is not available for selection in the A010 template, POIs must review Volume 3, Chapter 26, Section 2, paragraphs 3-2075 and 3-2076 to determine whether the program manager is required to have an Enhanced Weather Information System (EWINS) or approval from the Air Transportation Division (AFS-200) in lieu of an EWINS. Text may not be entered into the

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nonstandard/optional text (Text 99) box of MSpec A010 without prior approval from AFS-200 (See Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713).

3) Table 1 — EWINS. When a part 91K program manager receives FAA approval to use an EWINS, the POI will list each approved weather source used by the program manager as part of its EWINS in the first column of Table 1 in MSpec A010. POIs will enter the name of the manual containing the EWINS, the date of initial approval of the EWINS, and the date of the latest revision of the EWINS (when issued) in the remaining columns of the EWINS table. If EWINS is not authorized, POIs will enter "N/A" in the first column of the EWINS table. There is also a help icon ( ) for this table in WebOPSS. More detailed information on EWINS is located in Volume 3, Chapter 26, Section 4. POIs must review this guidance prior to approving an EWINS and each weather provider contained therein.

D. Part 121. The A010 template for part 121 contains requirements for part 121 domestic, flag, and supplemental operations. The template is broken down into the requirements for domestic and flag operations, the requirements for supplemental operations, and EWINS, which applies to all kinds of part 121 operations.

1) Part 121 Domestic and Flag Operations. Part 121, § 121.101 requires certificate holders conducting part 121 domestic and flag operations to use certain weather sources depending on where a flight is operating (e.g., outside or inside of the United States). A010 paragraph b and the subparagraphs and table contained therein apply to domestic and flag operations.

a) A010 Subparagraph b(1)—Part 121 Domestic and Flag Operations Within the 48 Contiguous United States and the District of Columbia. Subparagraph b(1) of OpSpec A010 automatically authorizes the use of the NWS or a source approved by the NWS to provide weather reports within the 48 contiguous United States and the District of Columbia. Sources approved by the NWS can be found in Volume 3, Chapter 26, Section 1, paragraph 3-2048. These specific sources do not have to be listed in A010; however, POIs should instruct certificate holders to include information on NWS-approved weather sources in the certificate holder's manual in accordance with the requirements of § 121.135(b)(4) and (b)(15).

b) A010 Subparagraph b(2)—Weather Sources Approved by the Administrator. Subparagraph b(2) of A010 contains a list from which the POI may select each weather source approved by the Administrator. Weather sources approved by the Administrator are outlined in Volume 3, Chapter 26, Section 1, paragraph 3-2048. To select a weather source, place a check mark in the appropriate box. Only the selected weather sources will display when the template is issued. If a certificate holder desires to use a weather source (e.g., a CWIP) that is not available for selection in the A010 template, POIs must review Volume 3, Chapter 26, Section 2, paragraphs 3-2075 and 3-2076 to determine whether the certificate holder is required to have an EWINS or approval from AFS-200 in lieu of an EWINS. Text may not be entered into the nonstandard/optional text (Text 99) box, without prior approval from AFS-200 (See Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713).

c) A010 Table 1—Adverse Weather Phenomena Reporting and Forecast System. Entering information into Table 1 for an Adverse Weather Phenomena Reporting and Forecast

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System Table is mandatory for all certificate holders who are authorized to conduct part 121 domestic and flag operations. Section 121.101(d) requires these certificate holders to have an FAA-approved system of obtaining reports and forecast of adverse weather phenomena. POIs will list each weather source (provider) the certificate holder is approved to use in its adverse weather phenomena reporting and forecast system in the first column of Table 1 in OpSpec A010. POIs will enter the name of the certificate holder's manual containing the approved adverse weather phenomena reporting and forecast system along with the date of initial approval and the date of the latest revision (when issued) into the remaining columns of Table 1. More detailed information on adverse weather phenomena reporting and forecast systems is located in Volume 3, Chapter 26, Section 3. POIs must review this information prior to approving any adverse weather phenomena reporting and forecast system. If a certificate holder is authorized to use an EWINS as a means of satisfying the regulatory requirement to have an FAA-approved adverse weather phenomena reporting and forecast system, POIs may select "See Table 2" in the first column provided in OpSpec A010 Table 1. This is allowable only if the EWINS meets or exceeds all of the requirements of an adverse weather phenomena reporting and forecast system, in accordance with Volume 3, Chapter 26, Section 3. Table 1 also contains a help icon ( ) in WebOPSS.

d) A010 Subparagraph b(4). Subparagraph b(4) of OpSpec A010 simply reflects the regulatory requirement of § 121.101(c) for certificate holders to use weather forecasts that are prepared from the weather reports prescribed in subparagraphs b(1), b(2), and b(3) of A010.

2) Part 121 Supplemental Operations. Section 121.119 requires certificate holders conducting supplemental operations to use certain sources of weather information depending on where a flight is operating. A010 paragraph c and all of the subparagraphs contained therein apply to part 121 supplemental operations.

a) A010 Subparagraph c(1)—Part 121 Supplemental Operations Within the United States. Subparagraph c(1) of OpSpec A010 automatically lists the U.S. NWS or a source approved by the Weather Bureau (the Weather Bureau is represented by the NWS) as the source for weather reports within the United States.

b) A010 Subparagraph c(2)—Weather Sources Approved by the Administrator. Subparagraph c(2) of OpSpec A010 contains a list from which the POI may select each weather source approved by the Administrator. Weather sources approved by the Administrator are outlined in Volume 3, Chapter 26, Section 1, paragraph 3-2048. To select a weather source, place a check mark in the appropriate box. Only the selected weather sources will display when the template is issued. If a certificate holder desires to use a weather source (e.g., a CWIP) that is not available for selection in the A010 template, POIs must review Volume 3, Chapter 26, Section 2, paragraphs 3-2075 and 3-2076 to determine whether the certificate holder is required to have an EWINS or approval from AFS-200 in lieu of an EWINS. Text may not be entered into the nonstandard/optional text (Text 99) box, without prior approval from AFS-200 (See Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713).

c) A010 Subparagraph c(3). Subparagraph c(3) of OpSpec A010 simply reflects the regulatory requirement of § 121.119(b) for certificate holders to use weather forecasts that are prepared from the weather reports prescribed in subparagraphs c(1) or c(2) of A010.

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3) A010 Table 2 – EWINS. When a certificate holder conducting part 121 operations receives FAA approval to use an EWINS, the POI will list each approved weather source used by the certificate holder as part of its EWINS in the first column of the EWINS table. POIs will enter the name of the manual containing the EWINS, the date of initial approval of the EWINS, and the date of the latest revision of the EWINS (when issued) in the remaining columns of the EWINS table. If EWINS is not authorized, POIs will enter "N/A" in the first column of the EWINS table. There is also a help icon ( ) for this table in WebOPSS. More detailed information on EWINS is located in Volume 3, Chapter 26, Section 4. POIs must review this guidance prior to approving an EWINS and each weather provider contained therein.

E. Part 125. Part 125 does not contain any requirements for specific sources for aviation weather information. If a certificate or LODA holder or the POI wishes to exercise the option of listing sources of aviation weather information in OpSpec/LOA A010, the POI may list each weather source in the text box provided in the template. Otherwise, the POI may simply list "N/A" in the text box provided. Additional guidance regarding the weather requirements of part 125 can be found in Volume 3, Chapter 26, Section 1. The OpSpec/LOA A010 templates for part 125 operations do not contain an EWINS table.

F. Part 135. In accordance with § 135.213(a), when weather reports and forecasts are required, certificate holders and pilots conducting part 135 operations must use a weather report or forecast, prepared by the NWS, a source approved by the NWS, or a source approved by the Administrator. For part 135 operations there are two templates available in WebOPSS: a straight part 135 template and a combination template for certificate holders authorized to conduct operations under parts 121 and 135 (part 121/135 combination). The requirements for the straight part 135 template and the part 121/135 combination template are the same where part 135 operations are concerned. The part 121/135 combination template reflects the part 135 requirements for aviation weather information in Section II of the template.

1) A010 Paragraph a—Weather-Reporting Facilities Operated by the NWS. Paragraph a of the part 135 template and the part 135 section of the part 121/135 combination template automatically authorizes the use of the NWS and sources approved by the NWS. Sources approved by the NWS can be found in Volume 3, Chapter 26, Section 1, paragraph 3-2048. These specific sources do not have to be listed in A010; however, POIs should instruct certificate holders to include information on NWS-approved weather sources in the certificate holder's manual in accordance with the requirements of part 119, §§ 119.43 and 135.23(r).

2) A010 Paragraph b—Weather Sources Approved by the Administrator. Subparagraph b(2) of the part 135 template and the part 135 section of the part 121/135 combination template A010 contains a list from which the POI may select each weather source approved by the Administrator. Weather sources approved by the Administrator are outlined in Volume 3, Chapter 26, Section 1, paragraph 3-2048. To select a weather source, place a check mark in the appropriate box. Only the selected weather sources will display when the template is issued. If a certificate holder desires to use a weather source (e.g., a CWIP) that is not available for selection in the A010 template, POIs must review Volume 3, Chapter 26, Section 2, paragraphs 3-2075 and 3-2076, to determine whether the certificate holder is required to have an EWINS or approval from AFS-200 in lieu of an EWINS. Text may not be entered into the

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nonstandard/optional text (Text 99) box, without prior approval from AFS-200 (See Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713).

3) A010 Table 1 – EWINS. Table 1 of the part 135 template and the part 135 section of the part 121/135 combination template is for EWINS. When a certificate holder conducting part 121 operations receives FAA approval to use an EWINS, the POI will list each approved weather source used by the certificate holder as part of its EWINS in the first column of the EWINS table. POIs will enter the name of the manual containing the EWINS, the date of initial approval of the EWINS, and the date of the latest revision of the EWINS (when issued) in the remaining columns of the EWINS table. If EWINS is not authorized, POIs will enter "N/A" in the first column of the EWINS table. There is also a help icon ( ) for this table in WebOPSS. More detailed information on EWINS is located in Volume 3, Chapter 26, Section 4. POIs must review this guidance prior to approving an EWINS and each weather provider contained therein.

4) A010 Table 2 – Deviation In Accordance With Part 135, § 135.213(b). Table 2 of the part 135 template, and the part 135 section of the part 121/135 combination template, contains the § 135.213(b) deviation table. When a certificate holder is granted the § 135.213(b) deviation in OpSpec A005, Exemptions and Deviations, the POI must list the information specified in the table for each location (e.g., airport, seaport, landing site, etc.) to which the deviation applies. Detailed information on § 135.213(b) deviations is contained in Volume 3, Chapter 26, Section 2. POIs must review this information prior to listing any information in the § 135.213(b) deviation table.

OPSPEC/MSPEC A011—APPROVED CARRY-ON BAGGAGE PROGRAM.

A. General. Part 121, § 121.589 requires part 121 operators to have an approved carry-on baggage program. This regulation also requires FAA approval to be in the operator's OpSpecs. When the FAA issues OpSpec/MSpec A011, the operator is authorized to either allow passengers to stow carry-on bags in the aircraft cabin or restrict the items brought inside the aircraft cabin to passenger personal items. Operators that do not allow carry-on bags in the cabin of the aircraft are considered to have a no-carry-on baggage program. Advisory Circular (AC) 120-27, Aircraft Weight and Balance Control, current edition, provides further details regarding the definitions of carry-on baggage and personal items. OpSpec/MSpec A011 must describe or reference the carry-on baggage program or the no-carry-on baggage program. It is permissible for OpSpec/MSpec A011 to reference a separate carry-on baggage document developed by the operator that describes the program. However, the operator may elect to implement the carry-on baggage program by describing the requirements of the program in various sections of its manuals, such as the passenger services manual and the flight attendant manual. In this case, template A011 should reference specific sections of the pertinent manuals. Reference to the approved program in the template must be controlled by revision number and/or date, as appropriate. When an operator's manual or separate carry-on baggage document does not adequately describe the approved carry-on baggage program, a combination of references and narrative description may be necessary. The description of the approved carry-on baggage program must address the items discussed in the current editions of AC 121-29, Carry-On Baggage, and AC 120-27. Additionally, one or more of templates A096, A097, A098, and/or A099 must be issued to track the approved carry on bag/personal item actual or average weights.

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B. Accounting for Carry-On Baggage Weight. Parts 91, 91 subpart K, and 135 operators requesting authorization to use average or segmented passenger weights that meet the requirements specified in AC 120-27, current edition, must either have a letter of authorization or been issued OpSpec/MSpec A011 to account for the actual or average weights used to account for carry-on baggage. Additionally, one or more of OpSpecs/MSpecs A096, A097, A098, and/or A099 must be issued to track the approved carry-on bag/personal item actual or average weights.

C. No Carry-On Baggage Program. Operators of small- and medium-cabin aircraft, as referenced in AC 120-27, current edition, may elect to only allow personal items onboard the aircraft. Operators with no-carry-on baggage programs must have procedures in place that ensure carry-on bags are either checked at the ticket counter, the gate, or plane side. Training programs should include the recognition of carry-on bags and procedures for removing such bags if they are inadvertently brought onboard the aircraft.

OPSPEC A012—PART 121 DOMESTIC OPERATIONS TO CERTAIN AIRPORTS OUTSIDE THE 48 CONTIGUOUS UNITED STATES AND ALASKA.

A. General. Title 14 CFR part 119, § 119.3(2)(iv), definition of "domestic operation," gives the Administrator the authority to allow a 14 CFR part 121 certificate holder with flag authority to conduct operations to and from specific airports outside the 48 contiguous United States and Alaska, in accordance with the rules applicable to domestic operations instead of the rules applicable to flag operations. OpSpec A012 is the method that the Administrator uses to grant this authorization.

B. Applicability. A012 is an optional OpSpec that is applicable to part 121 certificate holders who hold economic authority and are authorized in OpSpec A001 to conduct domestic and flag operations.

C. Conditions and Limitations. The following are some of the key conditions and limitations that must be met in order for certificate holders to operate under the authority granted by OpSpec A012:

1) The origin and destination airports must be listed in the certificate holder's OpSpec C070 as a regular, provisional, or refueling airport. Although certificate holders list alternate airports in their C070, part 121, § 121.631(a) specifically states, "A certificate holder may specify any regular, provisional, or refueling airport, authorized for the type of aircraft, as a destination for the purpose of original dispatch or release."

2) Destination airports outside of the contiguous United States that are not located in the state of Alaska must be within 950 nautical miles (NM) from the territorial limits of the 48 contiguous United States. The territorial limits of the 48 contiguous United States include the territorial waters of those States. The National Oceanic and Atmospheric Administration (NOAA) defines territorial waters as being 12 NM from the baseline of the State. Title 14 CFR part 1 contains a definition of the United States which includes the territorial waters and the airspace within.

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3) An alternate airport for the destination must be listed in the dispatch release:

a) If the flight is scheduled for more than 6 hours, regardless of the destination.

b) For flights conducted to Alaska if the destination airport does not have more than one separate suitable runway authorized for the type of aircraft to be used.

4) Certificate holders must comply with all regulations applicable to domestic operations when conducting operations in accordance with OpSpec A012.

NOTE: Principal operations inspectors (POI) must ensure that certificate holders fully understand the provision in subparagraph C4), particularly when it comes to fuel planning. There are several OpSpecs paragraphs, such as B043, B044, and B343, which apply only to flag and supplemental fuel reserves. A certificate holder operating flights in accordance with the provisions of OpSpec A012 cannot apply any regulations or OpSpecs paragraphs applicable to flag or supplemental operations. In other words, OpSpec A012 cannot be combined with OpSpecs such as B043, B044, and B343.

NOTE: Please review the actual OpSpec A012 template in the Web-based Operations Safety System (WebOPSS) to view the full authorization contained in the OpSpec, along with all of the conditions and limitations listed therein.

D. Policies and Procedures. Certificate holders who are seeking approval for OpSpec A012 must have adequate policies, procedures, and training in place for dispatchers and flightcrew members to ensure that flights are scheduled, planned, and released in accordance with all of the limitations and provisions of OpSpec A012.

E. If Conditions Cannot Be Met. If all of the limitations and provisions contained in OpSpec A012 cannot be met, the certificate holder is prohibited from conducting operations in accordance with its use and must conduct operations in accordance with flag rules.

OPSPEC/MSPEC A013—OPERATIONS WITHOUT CERTAIN EMERGENCY EQUIPMENT.

A. General. Use OpSpec/MSpecs A013 and A005 to approve deviations from the requirements for certain emergency equipment for extended over water operations for turbojet-powered airplanes.

1) Authorization for issuance requires the concurrence of the principal operations inspector (POI), the appropriate region, and the Air Transportation Division, AFS-200.

2) Approval is indicated by listing in OpSpec/MSpec A013 the make and model of the aircraft and the routes and/or areas to which the deviation applies.

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B. Applicability of OpSpec/MSpec A013 and Associated Deviations.

1) Part 91 subpart K fractional ownership program managers may apply for a deviation from part 91, § 91.509 to permit extended over water operations without carrying certain emergency ditching equipment.

2) Part 121 certificate holders may apply for a deviation from part 121, § 121.339 to permit extended over water operations without carrying certain emergency ditching equipment.

3) Part 135 certificate holders may apply for a deviation from part 135, § 135.167 to permit extended over water operations without carrying certain emergency ditching equipment.

C. Granting Deviations. If the FAA grants a deviation and issues OpSpec/MSpec A013:

1) Part 91K, fractional ownership program managers must list part 91, §§ 91.509(b)(2), (3), (4), and (5) in MSpec paragraph A005 with the reference to A013.

2) Part 121 certificate holders must list part 121, § 121.339(a)(2), (3), and (4) in OpSpec A005 with the reference to OpSpec A013.

3) Part 135 certificate holders must list part 135, § 135.167(a)(2) in OpSpec A005 with the reference to A013.

D. Life Preserver Deviation. It is FAA policy that deviations from the requirement to carry life preservers (§§ 121.339(a)(1), 135.167(a)(1), or 91.509(b)(1), as applicable) will not be approved.

E. Deviations From Carrying Liferafts. Deviations from the requirements for carrying liferafts and the liferaft's required attached equipment may be approved. There is no individual deviation provision or requirement for a deviation for the following required items:

- Survival kits (§§ 91.509(e), 121.339(c), and, 135.167(c), as applicable);
- Pyrotechnic signaling devices (§§ 91.509(b)(3), 121.339(a)(3), and 135.167(b), as applicable); and
- Emergency locator transmitters (§§ 91.509(b)(3), 121.339(a)(4), and 135.167(b), as applicable).

F. Permitted Areas of Operation. The area(s) of operation permitted is any offshore area adjoining the 48 contiguous states of the United States, the Gulf of Mexico, and the Caribbean Islands, as follows:

1) The south and east coasts of the United States, below 35 degrees North latitude, the Gulf of Mexico, and the Caribbean Islands, not to exceed 30 minutes' flying time in still air with one-engine inoperative, or 162 nautical miles (NM) from the nearest shoreline, whichever is less.

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2) The east coast of the United States, 35 degrees North latitude and above, not to exceed 30 minutes' flying time in still air with 1 engine inoperative or 100 NM from the nearest shoreline, whichever is less.

3) The west coast of the United States, not to exceed 30 minutes' flying time in still air with one-engine inoperative or 100 NM from the nearest shoreline, whichever is less.

G. Requirements for Supporting Documentation for Deviation Request. The operator must submit an application with supporting documentation for the deviation request with at least the following information about the conditions that must be met for the approval:

1) Aircraft operational capabilities for diversion due to an engine failure. This information must include drift down profiles, engine out cruise performance for two- and three-engine aircraft, and two-engine cruise performance for four-engine aircraft.

2) A graphical presentation of the areas and routes of en route operation and/or routes over which provisions of the deviation will apply, including proposed minimum en route altitudes and airports which could be used if diversion is necessary. The A013 authorization contains a limitation that in flight operations must not exceed the distance allowed under subparagraph F, as applicable, from a shoreline at any time. An exception is allowed for temporary maneuvering for weather avoidance.

3) Navigation and communication equipment requirements and capabilities for normal flight conditions and for engine inoperative flight conditions in the proposed areas of en route operation.

4) Existing and/or proposed procedures for diversion contingency planning and training curricula for flight and cabin crewmembers concerning ditching without liferafts.

5) A description of search and rescue facilities and capabilities for the proposed areas of en route operations.

H. Reviewing the Application.

1) The principal operations inspector (POI), in coordination with the principal maintenance inspector (PMI) and principal avionics inspector (PAI), must evaluate and substantiate submitted information. If a POI does not concur with the operator's proposal, the POI will forward a letter to the operator denying the application for a deviation with an explanation of the reasons for denial. If a POI concurs that the deviations should be approved, the POI will prepare and forward a recommendation along with the operator's application and supporting information to the Air Transportation Division, AFS-200, through the regional Flight Standards division.

2) AFS-200 will review the application, the supporting information, and the POI's recommendation. If AFS-200 does not concur with the POI's recommendation, AFS-200 will forward a letter to the POI, with a copy to the region, indicating nonconcurrence with an explanation of the reasons. If AFS-200 agrees with the POI's recommendation, AFS-200 will

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advise the POI by letter of the concurrence. With AFS-200 concurrence, the POI may approve the deviation by issuing A013 and A005.

OPSPEC A014—IFR EN ROUTE OPERATIONS IN CLASS G AIRSPACE.

A. General.

1) A014 provides the initial authorization for instrument flight rules (IFR) en route operations in Class G airspace. Other IFR en route authorizations may be found in OpSpecs B031, B034, B035, and B036, as applicable and appropriate.

2) OpSpec B032 prohibits special IFR en route operations in Class G airspace unless the POI approves such operations by issuing A014. IFR operations in Class G airspace are not provided any air traffic control (ATC) separation services. The certificate holder and the pilot in command (PIC) are responsible for avoiding obstacles and other air traffic.

B. Prerequisites for Authorizing En Route IFR Operations. Before authorizing en route IFR operations in Class G airspace to part 121, 121/135, 125, or 135 certificate holders:

1) The POI must confirm that the operator has a method or procedure for assuring that any facilities and services that this type of operation depends upon are operational during the periods in which flights are to occur.

2) The POI must also confirm that the operator has developed procedures and guidance for crewmember use while operating in areas of en route operations in Class G airspace. Aeronautical Information Publications (AIP) or flight information region (FIR) publications have broadcast in the blind procedures and other guidance for crewmember use when large areas of Class G airspace are within the area covered by the AIP or FIR.

NOTE: See Volume 4, Chapter 1, Section 1, General Navigation Concepts, Policies, and Guidance, and Section 4, Class II Navigation, for further discussion on en route operations in Class G airspace.

3) The reference to OpSpec B051 is to provide for part 121 reciprocating and turbo propeller powered aircraft operations only.

C. Special Terminal Area IFR Operations. OpSpecs C064, C080, and/or C081 now authorize special terminal area IFR operations in Class G airspace or at airports without an operating control tower. One or both types of these operations may be authorized.

D. Program Manager Authorizations. MSpec A014 authorizes the program manager to conduct IFR operations in Class G airspace and at airports without an operating control tower. Part 91 subpart K program managers will not have a separate MSpec C064 or C080.

OPSPEC A015—AUTOPILOT IN LIEU OF REQUIRED SECOND IN COMMAND.

A. General. In accordance with part 135, § 135.105(b), a part 135 operator may apply for authorization to use an autopilot in place of a second in command (SIC). The principal

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operations inspector (POI) must coordinate with a principal avionics inspector (PAI) to ensure each particular aircraft/autopilot combination is installed in accordance with FAA-approved data, is Airworthy, and is operationally capable of maintaining control of the aircraft to the degree specified in § 135.105(c). When making its request, the operator should include the following (PIs may request additional information):

1) Autopilot make/model,

2) Copy of the Flight Manual Supplement that identifies the aircraft and the autopilot, and

3) Copy of FAA Form 337, Major Repair & Alteration (Airframe, Powerplant, Propeller, or Appliance), if applicable.

B. Making Note of Conditions and Limitations. List the aircraft make and model and the autopilot manufacturer and model identification in A015. Any conditions or limitations which the POI determines necessary for a particular aircraft/autopilot combination must also be listed. It is not necessary to repeat conditions or limitations already specified in an Airplane Flight Manual (AFM) or AFM supplement. If no conditions or limitations apply, enter the word "none" in that part of the listing.

C. Approval. The approval for this authorization is granted by the PI issuing A015. A request for deviation is not required when granting this authorization, as there are no regulations being deviated from.

NOTE: PIs will authorize A015 in OpSpec A004, which summarizes the authorizations applicable to the operator. OpSpec A005 will not be populated when issuing A015.

OPSPEC A016. RESERVED. It was split into four separate authorizations: A037, A038, A039, and A040.

OPSPEC A017—APPROVED SECURITY PROGRAM FOR HELICOPTERS.

A. General. Title 49 of the Code of Federal Regulations part 1,500 does not include provisions for helicopter security programs. Helicopter operators who wish to enplane or deplane passengers or checked luggage into "sterile areas" must apply for, and receive authorization to use, an approved security program. A017 conveys the authority for helicopter operators to use an approved security program. Principal operations inspectors will not issue A017 without concurrence of the Civil Aviation Security Field Office.

B. Using References. Describe or reference the security program used by the operator in A017a. Reference sections of the operator's manual that describe the program used by that operator. It is not necessary to control these references by date. Change the references only when a revision to the operator's manual makes the reference in the OpSpecs incorrect. When the operator's manual does not adequately describe the system and/or procedures used, a narrative description combined with references may be needed.

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C. Listing Airports and/or Heliports. List the airports and/or heliports where operators must comply with the approved security program in A017b.

OPSPEC A018—SCHEDULED HELICOPTER OPERATIONS. A018 is issued to helicopter operators who operate scheduled passenger or cargo carrying operations.

A. Completing Approach and Landing With Powerplant Failure. Subparagraph A018a(2) authorizes scheduled helicopter operations along "Restricted Helicopter Routes" with helicopters which do not have Transport Category "A" one engine inoperative performance capabilities. The operator must show that helicopters using these routes can, at any point along the route and while at the minimum authorized altitude, complete a safe approach and landing if powerplant failure occurs. Determining compliance with these conditions will almost always be a controversial and difficult inspector task. For this reason, only currently qualified and highly experienced helicopter specialists should be used to evaluate these types of routes. In controversial cases, a team of helicopter specialists should be employed for this task.

B. Defining Restricted Helicopter Routes. OpSpec B050 must precisely define "Restricted Helicopter Routes." This may be accomplished in accordance with instructions in Volume 3, Chapter 18, Section 4, Part B Operations Specifications—En Route Authorizations and Limitations, paragraph B050, subparagraph B(2)(e). In certain situations, detailed descriptions (including maps, charts, ATC letters of agreement, special provisions, and limitations) of "Restricted Helicopter Routes" may be lengthy and complex. Therefore, it is permissible to incorporate these documents in B050 by reference.

OPSPEC A019—AUTOMOTIVE GASOLINE AS AIRCRAFT FUEL. A certificate holder may request authorization to use automotive gasoline as fuel in reciprocating engine aircraft used in 14 CFR part 135 cargo operations. When an inspector receives a request for this authorization, he must take all of the following actions before issuing A019:

A. Approval to Use Automotive Gasoline. In coordination with an Airworthiness inspector, determine that the specific aircraft is approved to use automotive gasoline as fuel.

B. Inspect the List of Aircraft. Inspect the proposed list of aircraft the certificate holder must maintain under 14 CFR part 119, § 119.59(b) for compliance with the provision of A019b(2).

C. Inspect Certificate Holder Procedures. In coordination with an Airworthiness inspector, determine that the certificate holder has written procedures which provide compliance with the requirements of OpSpec paragraphs A019b(3) and (4).

D. Necessary Entry in Aircraft and Powerplant Historical Record. The certificate holder must enter, in each appropriate aircraft and powerplant historical record, the following entry:

> "This aircraft/powerplant has been operated using automotive gasoline as fuel and is prohibited for use in part 135 passenger carrying operations until the following events have been completed and documented by a person authorized to perform an annual inspection of this aircraft:

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1) Remove all automotive fuel and fuel residue from the aircraft and powerplant fuel systems.

2) Inspect all components of the aircraft fuel system and appropriate components of the powerplants to determine that those components are Airworthy and conform to the appropriate type design.

3) Record events (1) and (2) in the aircraft and/or powerplant records."

OPSPEC A020—AIRPLANE OPERATIONS WITHOUT INSTRUMENT RATED PILOTS. A certificate holder who applies for this authorization may be issued A020 after each of the following considerations are satisfied.

A. Criteria for an Isolated Area. The area to be approved must be isolated. In determining whether an area is an "isolated area," consider the following criteria:

1) Isolated areas may include small settlements or villages. Commercial transportation, such as bus or train, is not available. Major highways do not transit or penetrate isolated areas although secondary and unimproved roads (suitable for cars and trucks) may be available. In many cases, the destinations are so isolated that air travel is the primary means of transportation.

2) Landing areas may be unimproved strips or water sites depending on the kinds of airplanes used and the time of year. Ski equipped airplane operations would be appropriate to frozen lakes or rivers and to suitable, snow covered land areas.

3) The size of isolated areas may vary considerably, depending on the needs of a particular certificate holder. However, part 135, § 135.243(d) states that flights may not exceed 250 nautical miles (NM) from the operator's base of operations. The point of departure, en route portion of flight, and landing site all must be within the boundaries of the approved isolated area.

4) Within isolated areas flight planning and navigational requirements are normally performed by pilotage only. Radio navigational signal coverage (very-high frequency omnidirectional range or nondirectional radio beacon facilities) is usually limited, or largely ineffective, in these areas. However, a radio facility may be located at or near a landing site without changing the classification of the isolated area.

5) Weather hazards that may be encountered in the proposed area and planning strategies that may reduce risk. (e.g., valleys may produce heavy fog in morning hours. Should a destination airport become fogged in while en route, consider using ABC airport as an alternate.)

B. Application for Isolated-Area Operations Using a PIC Without an Instrument Rating. Applicants requesting approval for these operations must hold an Air Carrier Certificate or an Operating Certificate and OpSpecs authorizing part 135 on-demand visual flight rules (VFR) day-only operations using single-engine land or seaplanes. Isolated-area operations using a pilot in command (PIC) without an instrument rating must not be authorized for commuter operations. Application for this authorization must be made by letter requesting amended OpSpecs. A map or current aeronautical chart identifying the area involved must be attached to

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the letter of application. This chart must clearly show the boundaries of the isolated area, the principal landing sites, and the distances from the operator's operations base.

C. Review of the Application for Compliance. Inspectors must review the application to confirm compliance with § 135.243(d)(3) (that the area is isolated) and § 135.243(d)(6) (flight distances do not exceed 250 NM). Inspectors must determine whether the certificate holder has a manual that incorporates instructions concerning operations in isolated areas. This manual must include a procedure that guarantees that noninstrument-rated PICs will not be used outside of the approved isolated areas. The principal operations inspector must determine that the following requirements are met before issuing A020.

1) All aircraft to be used are single, reciprocating engine powered, nine or fewer passenger airplanes equipped for at least day VFR operations.

2) Operations are limited to on demand, day VFR flights within the boundaries of the approved isolated area and not more than 250 NM distance from the base of operation.

3) Flight locating procedures are adequate.

4) The regional Flight Standards division concurs with the approval of the isolated area operation.

OPSPEC A021—AIR AMBULANCE OPERATIONS—HELICOPTER.

A. General. OpSpec A021 authorizes a certificate holder operating under 14 CFR part 135 to conduct air ambulance visual flight rules (VFR) medical service operations in helicopters. The term "helicopter air ambulance" (HAA) replaces the previously used term "helicopter emergency medical service" (HEMS).

1) HAA/air ambulance authorization requires that the intended takeoff and landing site be adequate for the proposed operation considering the size of the site, type of surface, surrounding obstructions, and lighting.

2) If the HAA operation is to be conducted at night, the takeoff and landing site must be clearly illuminated by a lighting source that will provide adequate lighting for the site itself and for any obstructions that could create potential hazards during approach, hovering, taxiing, and departure operations.

B. Provisions and Limitations.

1) OpSpec A021 specifies that the certificate holder may not use a pilot in command (PIC) in HAA operations unless that PIC has satisfactorily completed the certificate holder's FAA-approved training program for such operations. Because HAA operations often involve flights during periods of inclement weather, the training program for HAA operations must include a segment that covers the recovery from inadvertent instrument meteorological conditions (IIMC) encountered because of unforecasted weather conditions.

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2) OpSpec A021 specifies the conditions (day/night), area (local/cross-country), ceiling, and visibility the certificate holder is authorized to use for HAA operations in Class G (uncontrolled) airspace. Night conditions are further defined by identifying different minimums for high and low lighting conditions. In addition, OpSpec A021 specifies different ceiling and visibility minimums for these considerations and areas when operating in mountainous and nonmountainous areas. Each specific combination of conditions and areas are listed in OpSpec A021.

a) The possible combinations of conditions and area include time of day (night or day), level of light available at night (low and high lighting conditions), area of operation (local or cross-country), and the kind of area (mountainous or nonmountainous). Each of these combinations is specified along with ceiling and visibility authorizations.

b) Instrument flight rules (IFR) operators authorized to fly point in space (PinS) special instrument approach procedures (IAP) with a "Proceed VFR" transition to the heliport must apply their VFR weather minimums in determining their landing minimums.

1. Since these operations require that the aircrew be specifically qualified for the use of these approaches, the visual segment area may be considered "local" in nature.

2. Because the pilot and aircraft are trained, equipped, and authorized as fully IFR-capable under Part H authorizations, the area may be considered the equivalent of a "high lighting conditions" area at night.

3. The effect of precipitous terrain has been accounted for in the development of the minimum descent altitude (MDA); therefore, for purposes of applying VFR minimums in determining IFR landing visibility minimums, the area may be considered "nonmountainous." For planning purposes, this consideration applies when the distance from the missed approach point (MAP) to the landing area is less than 3 nautical miles (NM).

4. Therefore, when applying the VFR weather minimums of OpSpec A021 in determining the minimums for all special PinS approaches with a "Proceed VFR" transition to the heliport, apply the local, nonmountainous, day, or night high lighting conditions (as appropriate) minimums in OpSpec A021 in determining the landing minimum if the distance from the MAP to the heliport is 3 NM or less. However, if the distance from the MAP to the heliport exceeds 3 NM, the certificate holder must apply the VFR minimums prescribed in OpSpec A021 appropriate to the actual existing conditions (e.g., local, mountainous, day or nonmountainous, cross-country, night, etc.).

NOTE: For instrument approaches with a "Proceed visually" visual segment, the minimums provided in OpSpec A021 do not apply; the minimums specified in the IAP apply.

c) Requests for lower weather minimums for operations in uncontrolled airspace must be coordinated with and approved by the Air Transportation Division (AFS-200) through the regional Flight Standards division (RFSD). These requests must follow the nonstandard OpSpec approval process outlined in Volume 3, Chapter 18, Section 2, paragraph 3-713,

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Procedures for Requesting Nonstandard OpSpec/MSpec/LOA Authorizations and Nonstandard/Optional Text Authorizations.

C. Local Area. OpSpec A021 contains a description of the "local area." The local area is an area designated by the certificate holder, which generally may not exceed 50 NM from the dispatch location, taking into account manmade and natural geographic terrain features that are easily identifiable by the PIC and from which the PIC may visually determine a position at all times.

1) The local area may be the same for night and day operations unless the terrain features used for the day local area would not be discernible at night. In such a case, both a day and night local area must be described.

2) For example, in mountainous or desert locations, geographical features may facilitate day operations, but because of the lack of such features and/or lighted landmarks, night operations would not be authorized.

3) Additional information on local flying areas is provided in Volume 4, Chapter 5, Section 3, paragraph 4-947, LFA for HAA Operations.

D. HAA Reporting Data.

1) In compliance with Title 49 of the United States Code (49 U.S.C.) § 44731, Collection of Data on Helicopter Air Ambulance Operations, all part 135 certificate holders utilizing this OpSpec shall, within 30 days from the conclusion of each calendar-year, complete all applicable data fields in the Helicopter Air Ambulance (HAA) Data Reporting Spreadsheet (see subparagraph D2) below) and submit the completed spreadsheet to the FAA via email attachment to 9-AFS-HelicopterAirAmbulanceData@faa.gov; or, alternatively, HAA operators may submit their spreadsheet to FAA by using most forms of electronic media (e.g., CD-ROM, DVD, etc.) directly to:

Federal Aviation Administration
AFS-250, Part 135 Air Carrier Operations Branch
HAA Data Collection
800 Independence Avenue, SW., Room 831
Washington, DC, 20591

2) All part 135 certificate holders utilizing this OpSpec shall submit their data reports using a predesigned Microsoft Excel® spreadsheet template, which is available for download by cutting and pasting or typing into their browser the following Web address: http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs200/branches/afs250/.

E. Additional Information. For more information, see OpSpec A024, Air Ambulance Operations—Airplane, and OpSpec A050, Helicopter Night Vision Goggle Operations (HNVGO), in this section.

OPSPEC A022—APPROVED EXIT ROW SEAT PROGRAM. RESERVED.

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OPSPEC A023—USE A PROGRAM DURING GROUND ICING CONDITIONS.

A. Part 121. Part 121, § 121.629(c) requires part 121 certificate holders to have an approved ground deicing/anti-icing program, unless the certificate holder complies with § 121.629(d), which requires an outside the aircraft pretakeoff contamination check. Principal inspectors (PI) will issue OpSpec A023 to authorize the use of an approved ground deicing/anti-icing program or the use of an outside the aircraft pretakeoff contamination check. See Volume 3, Chapter 27, Ground Deicing/Anti-icing Programs, for guidance on approving a ground deicing/anti-icing program.

B. Parts 125 and 135. Part 125, § 125.221 and part 135, § 135.227 require parts 125 and 135 certificate holders who operate during ground icing conditions to have approved aircraft pretakeoff contamination check procedures. PIs will issue OpSpec A041 to authorize a pre takeoff contamination check (not necessarily outside the aircraft). A part 125 or 135 certificate holder may choose to comply with § 121.629(c) by having an approved ground deicing/anti-icing program, in which case the PI will issue OpSpec A023. If a part 125 or 135 operator chooses to operate without a pretakeoff contamination check or without a § 121.629(c) program, then PIs may only authorize them to operate when ground icing conditions do not exist by issuing OpSpec A042. See Volume 3, Chapter 27 for guidance on approving a ground deicing/anti-icing program.

OPSPEC A024—AIR AMBULANCE OPERATIONS—AIRPLANE.

A. General. Airplane air ambulance operations do not differ significantly from other types of airplane air carrier operations. OpSpec A024 authorizes a certificate holder operating in accordance with 14 CFR part 121 or 135 to conduct air ambulance operations in airplanes.

B. Requirement for Aircraft Used in Air Ambulance Operations. The aircraft used in air ambulance operations will be equipped with medical equipment appropriate to the type of care required for the patient. This medical equipment can include items such as medical oxygen, suction, and a stretcher, isolette, or other approved patient restraint/containment device. The aircraft need not be used exclusively as an air ambulance aircraft, and the equipment need not be permanently installed.

C. Air Ambulance Operations Definition.

1) Unscheduled air transportation in an airplane of a person(s) with a health condition that requires:

a) Medical personnel to provide special care, including, but not limited to, basic life support (BLS) or advanced life support (ALS); and

b) Medical equipment necessary to support the level of care required for the patient(s), such as medical oxygen, suction, and/or a stretcher, isolette, or other approved patient restraint/containment device as determined by a health care provider.

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2) Holding out to the public as willing to provide air transportation to a person with a health condition that requires medical personnel including, but not limited to, advertising, solicitation, or association with a hospital or medical care provider.

NOTE: The carriage of a person(s) requiring medical personnel and equipment on a scheduled air carrier operating under part 121 or 135 does not constitute air ambulance operations. However, an air carrier transporting a person(s) requiring medical personnel and equipment on an unscheduled flight (charter) is engaged in air ambulance operations. Providing transportation of body organs and human tissue in an airplane with or without passengers is not considered an airplane air ambulance operation.

D. Complete the Training Program Before Starting Air Ambulance Flights. OpSpec A024 specifies that the flightcrew must satisfactorily complete the certificate holder's approved training program prior to commencement of air ambulance flights. Inspectors should see Volume 3, Chapter 19, Section 15 for air ambulance training requirements.

E. Additional Information. For further guidance, see Volume 4, Chapter 5.

OPSPEC/MSPEC/TSPEC/LOA A025—ELECTRONIC SIGNATURES, ELECTRONIC RECORDKEEPING SYSTEMS, AND ELECTRONIC MANUAL SYSTEMS.

A. Applicability. A025 is the method the FAA uses to authorize a certificate holder or program manager to use an electronic signature, electronic recordkeeping system, or electronic manual system, in accordance with the requirements of 14 CFR. The A025 template applies to operations conducted in accordance with 14 CFR parts 91K, 121, 125 (including Letter of Deviation Authority (LODA) holders), 133, 135, 141, 142, 145, and 147. A025 does not apply to 14 CFR parts 61, 63, 65, 91 (excluding 91K), 129, 137, or 183. It is important to note that the A025 templates are tailored to specific regulatory requirements. Therefore, the template names and content may vary from part to part. All of the A025 templates are viewable in the Web-based Operations Safety System (WebOPSS).

B. Scope of this Guidance. The guidance contained in this section is designed to provide principal inspectors (PI) and aviation safety inspectors (ASI) with instructions on how to populate the A025 templates. The primary policy related to electronic signatures, electronic recordkeeping systems, and electronic manual systems is located elsewhere in this order. See subparagraph C below for the primary guidance references.

C. Primary Policy and Guidance. The primary policy that applies to a certificate holder's or program manager's use of electronic signatures, recordkeeping systems, and electronic manual systems is contained in the following 8900.1 chapters and sections:

1) Part 121 Dispatch and Flight Release Requirements – Electronic Signatures, Amendments, and Disposition. Information regarding electronic signatures on a dispatch or flight release, electronic amendments to a dispatch or flight release, and electronic recordkeeping of a dispatch or flight release is contained in Volume 3, Chapter 25, Section 1.

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2) Part 121 En Route Communication Records – Electronic Retention. Information on the electronic retention of en route communication records in accordance with part 121, § 121.711 is contained in Volume 3, Chapter 25, Section 1.

3) Electronic Signature, Electronic Recordkeeping System, and Electronic Manual System Standards. Volume 3, Chapter 31, Sections 1 and 2, contain definitions and the overall standards regarding electronic signatures, electronic recordkeeping systems, and electronic manual systems. These standards are also included in the current edition of Advisory Circular (AC) 120-78, Electronic Signatures, Electronic Recordkeeping, and Electronic Manuals.

4) Parts 121 and 135 Crewmember and Aircraft Dispatcher Records. Volume 3, Chapter 31, Section 3, contains detailed information regarding crewmember and aircraft dispatcher records in accordance with the requirements of parts 121 and 135, as applicable.

5) Part 121 and Part 135, § 135.411(a)(2) Maintenance Records. Volume 3, Chapter 31, Section 5, contains detailed information regarding the evaluation of an air carrier's maintenance recordkeeping system.

6) Part 91K Non-Continuous Airworthiness Maintenance Program (CAMP) Program Manager's, Part 125, § 125.247 Certificate Holder's, and § 135.411(a)(1) Maintenance Records. Volume 3, Chapter 31, Section 6, contains information for Airworthiness inspectors on how to evaluate part 91K non-CAMP and part 135 maintenance records.

D. Instructions for Parts 91K, 121, 125, and 135 – Electronic Signatures, Electronic Recordkeeping Systems, and Electronic Manual Systems.

1) Electronic Signatures. The FAA's standards for electronic signatures are located in Volume 3, Chapter 31, Section 2, and AC 120-78. In accordance with these standards, a certificate holder or program manager will be required to submit an application for acceptance of an electronic signature process to the certificate-holding district office (CHDO). Prior to issuing the A025 authorization to use an electronic signature, the PI or delegated ASI with the authority to sign and issue the OpSpec or MSpec must review the certificate holder/program manager's application and associated documentation to determine if the electronic signature and the electronic signature process meet the prescribed standards. After determining the standards are met and the application is acceptable, the PI or ASI will accept the certificate holder/program manager's electronic signature process and authorize the certificate holder/program manager to use electronic signatures by accomplishing the following:

a) Complete the Electronic Signatures Table (Table 1) in the A025 Template.

1. Select the applicable signature item(s) from the drop-down menu provided in the first column of Table 1 in the A025 template. Authorization for a certificate holder/program manager to use electronic signatures is limited to those items available in the drop-down menu. If the certificate holder/program manager does not use electronic signatures, select "N/A." Only the selected items will appear when A025 is issued to the certificate holder/program manager.

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2. Enter the electronic signature process revision number and date into the second column of Table 1. For a new, unrevised process, enter the revision number as “0” or “Original.” Enter the process date associated with the revision number.

3. Reference the manual that contains the electronic signature process in the third column of Table 1.

b) Sign and Issue A025 to Accept the Electronic Signature Process and Authorize the Use of the Selected Electronic Signatures. After completing Table 1, the PI or delegated ASI will sign OpSpec/MSpec A025 and issue it to the certificate holder/program manager. The signature of the PI or ASI conveys the FAA’s acceptance of the electronic signature process for each type of signature listed in the table. When the PI or ASI issues A025 in WebOPSS, the certificate holder/program manager is authorized to use those electronic signatures listed as of the effective date of the active OpSpec/MSpec. This date also signifies the effective date of FAA acceptance.

2) Electronic Recordkeeping Systems. The FAA’s standards for an electronic recordkeeping system are located in Volume 3, Chapter 31, Section 2, and AC 120-78. In accordance with these standards, a certificate holder/program manager will be required to submit an application for acceptance *or* approval of an electronic recordkeeping system to the CHDO, depending upon the regulatory requirement. Prior to issuing the A025 authorization to use an electronic recordkeeping system, the PI or delegated ASI with the authority to sign and issue the OpSpec/MSpec must review the certificate holder/program manager’s application and associated documentation to determine if the electronic recordkeeping system meets the prescribed standards. After determining the standards are met and the application is acceptable, the PI or ASI will accept or approve the recordkeeping system and authorize the certificate holder/program manager to use it by accomplishing the following:

a) Approve a Computer (Electronic) Recordkeeping System for Crewmember and Dispatcher Records – Parts 121 and 125 Only. Sections 121.683(c) and 125.401(c) require an electronic recordkeeping system that maintains crewmember and dispatcher (part 121) records to be FAA approved. Use Table 2 in the A025 template for parts 121 and 125 to approve an electronic recordkeeping system in accordance with § 121.683(c) or § 125.401(c) and authorize its use. The table has four columns. Each column specifies the required information.

1. Column 1 – Kind of Record. Enter the kind of record (e.g., dispatcher training record, crewmember qualification record, etc.) into column 1 of Table 2 in OpSpec A025. If the certificate holder does not use an electronic recordkeeping system for crewmember or dispatcher records, enter “N/A” in column 1 to complete the table.

2. Column 2 – Name of Electronic System. Enter the name of each electronic system used to maintain crewmember or dispatcher records in column 2 of Table 2.

3. Column 3 – Software Version Number. Enter the version number of the software (e.g., version 1.0, version 1.2, version 1A, etc.) in column 3 of Table 2.

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4. Column 4 – Manual Containing the Electronic Recordkeeping System Description. Enter the name of the manual containing the electronic recordkeeping system description in column 4 of Table 2.

5. After entering the recordkeeping system information into Table 2 of OpSpec A025, the principal operations inspector (POI), or delegated ASI with the authority to sign and issue the OpSpec, will sign A025 and issue it to the certificate holder. The signature of the POI or ASI conveys the FAA's approval of the electronic recordkeeping system. When the POI or ASI issues A025 in WebOPSS, the certificate holder is authorized to use the electronic recordkeeping system(s) listed as of the effective date of the active OpSpec. This date also signifies the effective date of FAA-approval.

b) Accept an Electronic Recordkeeping System for All Other Certificate Holder/Program Manager Records. Electronic recordkeeping systems for records other than those specified by §§ 121.683 and 125.401 are FAA accepted. Use the Electronic Recordkeeping System table (Table 2 for parts 91K and 135, or Table 3 for parts 121 and 125) of A025 to accept an electronic recordkeeping system and authorize its use. The table has four columns. Each column specifies the required information.

1. Column 1 – Kind of Record. Enter the kind of record (e.g., communications, dispatch release, flight release, airworthiness release, etc. If the certificate holder/program manager does not use electronic records of any kind, enter "N/A" in column 1 to complete the table.

2. Column 2 – Name of Electronic System. Enter the name of the electronic recordkeeping system used to maintain each kind of record in column 2 of the table.

3. Column 3 – Software Version Number. Enter the version number of the software (e.g., version 1.0, version 1.2, version 1A, etc.) in column 3 of the table.

4. Column 4 – Manual Containing the Electronic Recordkeeping System Description. Enter the name of the manual containing the electronic recordkeeping system description in column 4 of the table.

5. After completing the Electronic Recordkeeping System table, the PI, or delegated ASI with the authority to sign and issue the OpSpec/MSpec, will sign A025 and issue it to the certificate holder/program manager. The signature of the PI or ASI conveys the FAA's acceptance of the electronic recordkeeping system. When the PI or ASI issues A025 in WebOPSS, the certificate holder/program manager is authorized to use the electronic recordkeeping system(s) listed as of the effective date of the active OpSpec/MSpec. This date also signifies the effective date of FAA acceptance.

3) Electronic Manual System. The FAA's standards for electronic manuals and electronic manual systems are located in Volume 3, Chapter 31, Section 2, and AC 120-78. In accordance with these standards, a certificate holder/program manager will be required to submit an application for acceptance of the electronic manual system to the CHDO. Prior to issuing the A025 authorization to use an electronic manual system, the PI or delegated ASI with the authority to sign and issue the OpSpec/MSpec must review the certificate holder/program

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manager's application and associated documentation to determine if the electronic manual system meets the prescribed standards. After determining the standards are met and the application is acceptable, the PI or ASI will accept the electronic manual system and authorize the certificate holder or program manager to use it by accomplishing the following:

a) Complete the Electronic Manual System Table (Table 3 for parts 91K and 135, or Table 4 for parts 121 and 125) in the A025 Template. Enter the name of the master manual that contains the electronic manual system description (which must include the list of electronic manuals) in the first column of the table. There is no requirement to list each electronic manual maintained on the system in A025 itself. In the second column of the table, enter the latest revision number of the master manual, along with the date of the revision. For an unrevised, originally issued manual or document, enter the publication date as it appears in the manual. For the revision number, enter "0" or "Original." If the certificate holder/program manager does not use any electronic manuals, enter "N/A" in the first column of the table.

b) Sign and Issue A025 to Accept the Electronic Manual System and Authorize Its Use. After completing the Electronic Manual System table, the PI or delegated ASI will sign OpSpec/MSpec A025 and issue it to the certificate holder/program manager. The signature of the PI or ASI conveys the FAA's acceptance of the electronic manual system. When the PI or ASI issues A025 in WebOPSS, the certificate holder/program manager is authorized to use the system as of the effective date of the active OpSpec/MSpec. This date also signifies the effective date of FAA acceptance.

4) Electronic Access to a Minimum Equipment List (MEL). In accordance with part 91, § 91.1115(a)(2); § 121.628(a)(2); § 125.201(a)(2); and § 135.179(a)(2), certificate holders/program managers conducting part 91K, 121, 125, or 135 operations require FAA approval and OpSpec authority to provide access to an MEL via electronic means.

a) Each electronic MEL must be part of the certificate holder/program manager's electronic manual system and must be listed in the certificate holder's master manual or document.

b) To approve electronic access to an MEL, begin by following the electronic manual system guidance (located in subparagraph D3) above).

c) List the MEL(s) in the Electronic Access to Minimum Equipment List table (Table 4 for parts 91K and 135 and Table 5 for parts 121 and 125) of the A025 template. List each electronic MEL by aircraft make and model (M/M). If the MEL is specific to a particular series of aircraft, you must list the MEL by make, model, *and* series (M/M/S). If a certificate holder/program manager provides electronic access to all of its MELs, enter "All" in the table.

d) The process for approving electronic access to an MEL and authorizing a certificate holder/program manager to provide electronic MEL access is complete only when the Electronic Manual System and Electronic Access to Minimum Equipment List tables are completed in accordance with this section, and the POI or delegated ASI signs A025 and issues it to the certificate holder/program manager. The POI's or ASI's signature conveys FAA approval to distribute an MEL via electronic means. When the POI or ASI issues A025 in WebOPSS, the

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certificate holder/program manager is authorized to electronically distribute its MEL as of the effective date of the active OpSpec/MSpec. This date also signifies the effective date of FAA approval. If the certificate holder/program manager does not distribute its MEL(s) electronically, enter "N/A" in the first column of the table.

5) Certificate Holders or Program Managers Who Have Authority to Use an Electronic Flight Bag (EFB). OpSpec A025 is the primary authorization for the use of electronic signatures, electronic recordkeeping systems, and electronic manual systems. Certificate holders and program managers who have authorization to use an EFB in accordance with OpSpec A061, Use of Electronic Flight Bag, will require the OpSpec A025 authorization for these items. Any electronic signature, record, or manual used in conjunction with, or otherwise displayed on an EFB, is subject to the standards set forth in Volume 3, Chapter 31, Section 2, and AC 120-78.

a) Electronic Signatures. If a certificate holder or program manager uses electronic signatures in conjunction with an EFB, the certificate holder/program manager must include the EFB as part of its electronic signature process. The authority to use any electronic signature, including one that is used in conjunction with an EFB, applies only to those items that are selectable in the Electronic Signatures table located in A025.

b) Electronic Recordkeeping System. If a certificate holder/program manager uses an EFB as an electronic recordkeeping system for a particular kind of record, list the kind of record in the first column of the appropriate Electronic Recordkeeping System table in A025. Then reference the EFB as authorized in A061 as the name of the electronic system. For example, "EFB as authorized in A061."

c) Electronic Manual System and Electronic Access to an MEL. Where electronic manuals (including an MEL) are concerned, an EFB is a means to display and provide access to manuals by flight and cabin crewmembers. Therefore, a certificate holder or program manager must describe the use of the EFB as part of its overall electronic manual system that is described in the master manual referenced in the Electronic Manual System table of A025. For an electronic MEL, the certificate holder or program manager must also list the MEL by M/M or M/M/S (depending on MEL applicability) or list "All" in the Electronic Access to Minimum Equipment List table.

E. Instructions for Part 133 – Electronic Signatures, Electronic Recordkeeping Systems and Electronic Manuals. The FAA's policy and standards for electronic signatures, electronic recordkeeping systems, and electronic manual systems are located in Volume 3, Chapter 31, Section 2, and AC 120-78. PIs and ASIs must review the policy prior to authorizing a certificate holder to use an electronic signature, electronic recordkeeping system, or electronic manual. If a certificate holder does not use electronic signatures, records, or manuals, do not issue A025.

1) Part 133 Electronic Signatures. The A025 template for part 133 has a selectable subparagraph b. that applies to electronic signatures. PIs will select the appropriate subparagraph based on whether or not the certificate holder is authorized to use electronic signatures.

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a) To accept a certificate holder's electronic signature process and authorize a certificate holder to use electronic signatures, select the subparagraph b. that states the following: "b. The certificate holder is authorized to use electronic signatures in accordance with the requirements of 14 CFR Part 133." After selecting the appropriate subparagraph b., the PI or ASI with OpSpec signature authority will sign and issue OpSpec A025 to the certificate holder. The PI's or ASI's signature on the OpSpec conveys the FAA's acceptance of the electronic signature process. When the PI or ASI issues A025 in WebOPSS, the certificate holder is authorized to use electronic signatures as of the effective date of the active OpSpec. This date also signifies the effective date of FAA acceptance.

b) If a certificate holder is not authorized to use electronic signatures, select the subparagraph b. that states the following: "b. The certificate holder is not authorized to use electronic signatures."

2) Part 133 Electronic Recordkeeping Systems.

a) To accept an electronic recordkeeping system and authorize its use, complete Table 1 in the A025 template. There are four columns in the table. Each column specifies the required information.

1. Column 1 – Kind of Record. Enter the kind of record in column 1 of Table 1 in A025 (e.g., continued airworthiness records, pilot qualification records, etc.). If the certificate holder does not use electronic records of any kind, enter "N/A" in column 1 to complete the table.

2. Column 2 – Name of Electronic System. Enter the name of the electronic system used for each electronic record in column 2 of Table 1.

3. Column 3 – Software Version Number. Enter the software version number, as depicted by the software itself, in column 3 of Table 1. (e.g., version 1, version 1.2, etc.)

4. Column 4 – Manual Containing Electronic Recordkeeping System Description. Enter the name of the manual containing the electronic recordkeeping system description in column 4 of Table 1.

b) After completing Table 1, the PI, or delegated ASI with the authority to sign and issue the OpSpec, will sign A025 and issue it to the certificate holder. The signature of the PI or ASI conveys the FAA's acceptance of the electronic recordkeeping system. When the PI or ASI issues A025 in WebOPSS, the certificate holder is authorized to use the electronic recordkeeping system(s) listed as of the effective date of the active OpSpec. This date also signifies the effective date of FAA acceptance.

3) Part 133 Electronic Manuals.

a) To accept electronic preparation of a certificate holder's manual and authorize a certificate holder to use the manual in electronic form, enter the name of the manual in the Electronic Manual System table (Table 2) of the part 133 A025 template. After entering the

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appropriate information, the PI or ASI with OpSpec signature authority will sign and issue the OpSpec to the certificate holder. The PI's or ASI's signature on the OpSpec conveys the FAA's acceptance of the electronic preparation of the manual. When the PI or ASI issues A025 in WebOPSS, the certificate holder is authorized to use the electronic manual(s) listed in the OpSpec as of the effective date of the active OpSpec. This date also signifies the effective date of FAA acceptance.

b) If the certificate holder does not use electronic manuals, enter "N/A" in the first column of Table 2.

F. Instructions for Part 141 – Electronic Recordkeeping System. The FAA's policy and standards for electronic recordkeeping systems and the electronic signatures used in conjunction with electronic records are located in Volume 3, Chapter 31, Section 2, and AC 120-78. POIs and ASIs must review the policy prior to authorizing a certificate holder to use an electronic recordkeeping system and an electronic signature used in conjunction with that system to enter and maintain the records required by part 141. If a certificate holder is not authorized to use an electronic recordkeeping system, do not issue training specification (TSpec) A025.

1) The Electronic Recordkeeping System. To accept a certificate holder's electronic recordkeeping system and authorize its use, describe or reference the recordkeeping system in the field provided in subparagraph a. of the A025 template for part 141.

2) Electronic Signatures to be Used in Accordance with the Electronic Recordkeeping System. Most electronic records will require the use of an electronic signature. The A025 template for part 141 has a selectable subparagraph that allows a POI or ASI, with the appropriate TSpec signature authority, to authorize a certificate holder to use electronic signatures in accordance with its electronic recordkeeping system.

a) To authorize a certificate holder to use electronic signatures, select subparagraph b. that states the following: "b. The certificate holder is authorized to use electronic signatures in conjunction with the recordkeeping system described or referenced in subparagraph a. of this training specification."

b) If a certificate holder is not authorized to use electronic signatures, select the subparagraph b. that states the following: "b. The certificate holder is not authorized to use electronic signatures."

c) When the POI or ASI completes, signs, and issues A025 in WebOPSS, the authorizations contained therein become effective as of the date of the active TSpec.

G. Instructions for Part 142 – Electronic Recordkeeping Systems. The TSpec A025 for part 142 applies to a certificate holder's paper-based and/or electronic recordkeeping system. Use the text boxes provided in subparagraph a. of TSpec A025 to authorize a paper-based or electronic recordkeeping system, or a combination of both. The FAA's policy and standards for electronic recordkeeping systems and electronic signatures are located in Volume 3, Chapter 31, Section 2. PIs and ASIs must review the policy prior to authorizing a certificate holder to use an

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electronic recordkeeping system or electronic signature. A025 for part 142 is a mandatory template.

1) Authorize a Paper-Based Recordkeeping System. To authorize a certificate holder to use a paper-based recordkeeping system to maintain the records required by part 142, § 142.73, describe or reference the system in the appropriate text box located in subparagraph a. of the A025 template.

2) Authorize the Electronic Recordkeeping System. To authorize a certificate holder to use an electronic recordkeeping system to maintain the records required by § 142.73, describe or reference the recordkeeping system in the appropriate text box located in subparagraph a. of the A025 template for part 142.

3) Location and Point of Contact Information for Trainee Records – Table 1. Complete Table 1 of the part 142 template by entering the appropriate information in each column of the table.

4) Location and Point of Contact Information for Records Showing Regulatory Compliance with Instructor and Evaluator Qualifications and Training Requirements – Table 2. Complete Table 2 by entering the appropriate information in each column of the table.

5) Electronic Signatures to be used in Accordance with the Electronic Recordkeeping System. Most electronic records will require the use of an electronic signature. The A025 template for part 142 has a selectable subparagraph that allows a PI to authorize a certificate holder to use electronic signatures in accordance with its electronic recordkeeping system. To authorize a certificate holder to use electronic signatures, select the subparagraph d., which states: "d. The certificate holder is authorized to use electronic signatures in conjunction with the recordkeeping system described or referenced in subparagraph a of this training specification."

H. Instructions for Part 145 – Electronic/Digital Recordkeeping System, Electronic/Digital Signature, and Electronic Media. The FAA's policy and standards for electronic signatures, electronic recordkeeping systems, and electronic manuals are located in Volume 3, Chapter 31, Section 2. PIs and ASIs must review the policy prior to authorizing a repair station to use an electronic/digital signature, electronic/digital recordkeeping system, or electronic media as a means to distribute certain manuals. If a repair station does not use a digital recordkeeping system, electronic/digital signature, or electronic media, do not issue A025.

1) Electronic/Digital Recordkeeping System. To authorize a repair station to use an electronic/digital recordkeeping system, describe or reference the system in the field provided in subparagraph a. of the A025 template for part 145. If the repair station does not use an electronic/digital recordkeeping system, enter "N/A."

2) Electronic/Digital Signatures. To authorize a repair station to use electronic/digital signatures, enter the electronic/digital signature procedures or reference the manual containing the procedures in the field provided in subparagraph b. of the part 145 template. If the repair station does not use electronic/digital signatures, enter "N/A."

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3) Electronic Media for the Repair Station Manual (RSM) and Quality Control Manual (QCM). To authorize a repair station to use electronic media for the RSM and QCM, enter a description of the electronic media in the field provided in subparagraph c. of the part 145 template. If the repair station does not use electronic media for its RSM and QCM, enter "N/A."

I. Instructions for Part 147 – Recordkeeping System. Instructions for the part 147 A025 template are located in Volume 3, Chapter 18, Section 11, Parts A and B Operations Specifications for Part 147 Aviation Maintenance Technician Schools. The FAA's policy and standards for recordkeeping systems and electronic signatures are located in Volume 3, Chapter 31, Section 2. PIs and ASIs must review the policy prior to authorizing a certificate holder to use an electronic recordkeeping system or electronic signature.

OPSPEC A026—RESTRICTED OPERATION OF CERTAIN STAGE 2 AIRPLANES. RESERVED.

OPSPEC/MSPEC A027—LAND AND HOLD SHORT OPERATIONS. (OPTIONAL.)

A. General. OpSpec A027 authorizes Land and Hold Short Operations (LAHSO) for part 121, 125, and 135 certificate holders, and part 91 subpart K program managers. Certificate holders must meet certain requirements for operational policies, procedures, and training for LAHSO before the principal operations inspector (POI) may issue this OpSpec. No operator may participate in LAHSO unless it has accomplished flightcrew training. FAA Air Traffic Order 7110.118, Land and Hold Short Operations (LAHSO), must be used in conjunction with the information provided in this paragraph.

NOTE: Waivers will not be issued to any LAHSO procedures.

B. Requirement for Participating in LAHSO. Operators may not participate in LAHSO and the FAA will not issue OpSpec A027 until the following are met:

1) Local Flight Standards District Office (FSDO) managers and local and regional Air Traffic managers must coordinate, (in accordance with FAA Order 7210.3, Facility Operation and Administration and Order 7110.118) the following for airports in their district conducting LAHSO:

- Participation of Flight Standards Service (AFS) representatives in local LAHSO development teams;
- Review of air traffic control (ATC) procedures to ensure that procedures are consistent with aircraft/aircrew performance capabilities according to the type of aircraft operations involved;
- Assisting in the identification of eligible aircraft that may operate on each runway, based on the available landing distance (ALD); and
- Ensuring that no air carrier is approved to operate aircraft to a runway, for the purpose of conducting LAHSO, with less than that specified on Order 7110.118, appendix 1, Aircraft Group/Distance Minima.

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NOTE: Aircraft not identified in Order 7110.118, appendix 1 do not participate in LAHSO. Aircraft additions to Appendix 1 may be requested through the local ATC facility manager to Air Traffic Service (AAT) and AFS at FAA Headquarters.

2) POI.

a) Each POI must review the following:

- FAA Order 7110.118, in order to identify AFS roles and responsibilities to support joint development of procedures for conducting LAHSO at specific airports. FAA Order 7110.118 may be found at http://ato.faa.gov.

NOTE: If Internet access is unavailable, contact ATP 120 at (202) 267-7265 for the most current guidance document.

- Regulatory requirements, as applicable: parts 125 and 135 subpart I; and §§ 91.1037, 23.75; 25.125; and 121.195.

b) Each POI must ensure the following actions have been accomplished before issuing or re-issuing, as appropriate, OpSpec A027:

- The air carrier has instituted flightcrew member training on LAHSO;
- The air carrier has a system that accurately determines the landing distance or maximum landing weight required for LAHSO and that ensures no aircrew accepts a landing clearance to a runway with a landing distance less than the distance identified in FAA Order 7110.118, appendix 1;
- The air carrier has provided flightcrew members with all necessary information needed to conduct LAHSO; and
- Paragraph A027c describes the location of the air carrier's LAHSO procedures. These procedures may be contained in any flightcrew member manual or document readily available to flightcrew members for reference.

NOTE: The FAA strongly recommends that all carriers provide aircrews with in flight single source documentation on LAHSO procedures. See Volume 4, Chapter 3, Section 5, Selected Practices, paragraph 600, Land and Hold Short Operations (LAHSO), for additional information.

OPSPEC A028—AIRCRAFT WET LEASE ARRANGEMENTS. In FAA use, the term "wet lease" is any leasing arrangement whereby a person agrees to provide an entire aircraft and at least one crewmember (part 119, § 119.3). This OpSpec authorizes certificate holders who conduct common carriage operations under parts 121 and 135 to enter into wet lease arrangements with other part 119 certificate holders. See Volume 12, Chapter 2, Section 9, Lease, Interchange, and Charter Arrangements, for the wet lease of any aircraft by a U.S. air carrier to a foreign air carrier or foreign person engaged in common carriage wholly outside the

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United States. Volume 3, Chapter 13, Section 4, Wet Lease Agreements, provides direction and guidance for processing and authorizing wet lease arrangements.

A. Reviewing Wet Lease Arrangements. When reviewing proposed § 119.53 wet lease arrangements between U.S. certificate holders authorized to conduct common carriage operations, there are two critical factors to consider: (1) whether or not the lessee has exclusive legal possession and use of the entire aircraft, and (2) whether or not the lessor retains actual possession and operational control of the aircraft by virtue of providing and controlling the crewmembers.

1) Possession. In an FAA-defined wet lease, the lessor surrenders legal possession of specific aircraft to the lessee, but in general retains actual possession of the aircraft by virtue of providing and controlling the crewmember(s). This form of lease implies that the lessee has possession or custody, not ownership, of the aircraft for a specified period of time or a defined number of flights.

a) The lessor is the certificate holder who grants legal possession and use of specific aircraft to another certificate holder.

b) The lessee is the certificate holder who obtains legal possession and use of specific aircraft from another certificate holder.

c) If the lessor/grantor never transfers legal possession or custody of the entire aircraft, the arrangement is not a § 119.53 wet lease. Likewise, if the arrangement makes it clear that actual possession of the entire aircraft is never transferred; the arrangement is not a § 119.53 wet lease. In this case the arrangement might actually be a charter. An example of such an arrangement is a provision of “aircraft with crew” agreement where no legal or actual transfer of the possessory rights to the aircraft occurs. Such an arrangement is a services agreement for provision of a flight service to a customer even if characterized as a wet lease by the parties to the agreement.

2) Operational Control. As defined in 14 CFR part 1, operational control is the exercise of authority over initiating, conducting, or terminating a flight. The certificate holder exercising operational control—generally the lessor—is responsible for the safety and regulatory compliance of the flights. The FAA rarely has allowed operational control to be exercised by the lessee certificate holder. An example of such a case entails a lessee certificate holder who obtains legal possession of the lessor certificate holder’s aircraft and, as part of the arrangement, the lessor agrees to furnish two flight attendants with the aircraft. In addition, the lessee furnishes the pilot crewmembers to operate the aircraft. In this case, the lessee certificate holder obtains both actual and legal possession of the aircraft and operational control by virtue of providing and controlling the pilot crewmembers. If there is a question that the lessee may have operational control, the lease must also be reviewed by AFS-200 and AGC-300. In this case, both must concur in the issuance of OpSpec A028.

3) Wet Lease Types. Operational control under an FAA-defined wet lease will be one of two types.

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a) The lessor certificate holder will have operational control of the listed aircraft. If the lessor certificate holder will have operational control, that certificate holder is authorized to conduct operations in accordance with each applicable wet lease arrangement identified in Table 1 of the OpSpec.

1. The certificate holder issued this authorization must at all times be responsible for and maintain the operational control and airworthiness of each aircraft identified in each lease arrangement. The lease arrangement(s) must be listed in Table 1 of the OpSpec.

2. The nationality, registration, and serial number of each aircraft to be used under the terms of the wet lease arrangement will be identified in paragraph D080 or D087, as applicable, and D085 of the certificate holder's OpSpecs.

3. While conducting operations under this authorization, the lessor may use the call sign and flight number(s) of the lessee, provided that, for all flights the lessor certificate holder explains in the remarks section of the applicable flight plan that the flight is actually being conducted under the call sign and flight number(s) of the lessee.

4. Both lessor and lessee certificate holders will have their role and information of the wet lease arrangement documented in OpSpec A028 of their respective OpSpecs.

b) The lessor certificate holder will not have operational control of the listed aircraft. This type of arrangement is rare. For the FAA to approve such an arrangement, the parties to it will have to establish to the FAA's satisfaction how the lessee will exercise operational control of the aircraft. For the party to each applicable wet lease who will not have operational control, that determination must be stated in Table 2, of the respective certificate holders' OpSpecs. Under this example, the lessor certificate holder not having operational control will exercise the wet lease arrangement(s) listed in Table 2 with the following limitations and provisions:

1. The lessee, as the party exercising operational control, is singularly responsible for the safety and regulatory compliance of the flights.

2. The lessee, as the party having operational control in the wet lease arrangement listed in Table 2, must at all times be responsible for, and maintain the operational control and airworthiness of the aircraft identified in each wet lease arrangement listed.

3. The lessor certificate holder is not authorized to have, and may not have, operational control of any operation conducted by the lessee certificate holder under this subparagraph of the OpSpec.

4. Both lessor and lessee certificate holders will have their role and information of the wet lease arrangement documented in OpSpec A028 of their respective OpSpecs.

B. Wet Leasing Prohibitions. Section 119.53(b) prohibits part 119 certificate holders' wet leasing from a foreign air carrier or any other foreign person or any person not authorized to

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engage in common carriage. This prohibition is to prevent confusion as to which carrier would be held accountable for the safety of the flight, which country's air carrier safety rules would be followed, and which civil aviation authority would have primary oversight responsibilities.

1) It is common practice among commercial operators to enter into agreements which the two parties characterize as wet leases but which actually are charters when compared to the FAA definition of wet lease. The term "charter" is not defined in FAA regulations. However, in operational terms, a charter is an agreement whereby a person provides lift capacity (cargo or passengers) to another person for a defined period of time or number of flights. In other words, a charter is a services agreement for the provision of a flight service—not transfer of possession or custody of an aircraft and the FAA expects the charter operator providing an aircraft with crew to have operational control over all flights conducted pursuant to the agreement.

2) A U.S. air carrier that enters into an agreement with a foreign air carrier for both an aircraft and crew to perform part of the U.S. air carrier's international operations may not be entering into a wet lease as defined by the FAA if certain conditions (described below) are met. Note that, for commercial reasons both U.S. and foreign air carriers may characterize such arrangements as wet leases even though they are more in the nature of a charter. These agreements, even if characterized by the parties as wet leases, are a type of charter and are subject to the requirements of 14 CFR part 212.

3) In some commercial arrangements, the term provision of aircraft with crew (or similar phrasing) rather than charter may be used. The provision of aircraft with crew arrangement does not involve any legal or actual transfer of the possessory rights to the aircraft; it is a services agreement or arrangement for a lessor to provide a flight service and does not transfer possession of the aircraft to the lessee.

4) Charter or provision of aircraft with crew arrangements are commercial arrangements between carriers that require a statement of authorization from the Office of the Secretary of Transportation (OST); they are not documented by OpSpec. The OST authorization process includes a determination that the requirements of part 212 are met and the proposed operation is in the public interest. Such determinations are made in coordination with the FAA, which will review the arrangements and make determinations relating to operational control, possession of the aircraft, the safety oversight of the operation, and the safety audit of the foreign air carrier. Where a foreign air carrier will be involved in such a lease or provision of aircraft with crew arrangement to a U.S. air carrier, approval will be subject to the following requirements:

a) The foreign air carrier involved holds a foreign air carrier permit or exemption authority from OST to conduct charter operations;

b) The country that issued the foreign air carrier's air operator certificate has been rated as Category 1 under the FAA's International Aviation Safety Assessment program.

c) The operations to be conducted represent foreign air transportation and not prohibited cabotage, in accordance with Title 49 of the United States Code, § 41703;

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d) The foreign air carrier would be conducting a flight or series of flights. The U.S. air carrier has the economic authority for the flight or series of flights that will be conducted with the foreign air carrier's aircraft and crew;

e) The foreign air carrier files an application for a statement of authorization for any such operation proposed;

f) The foreign air carrier demonstrates that it would be in operational control of the proposed operation, for example, by providing with its application, for review by the FAA, copies of the lease arrangement for the aircraft with crew, that it has entered into with the U.S. certificated air carrier;

g) The foreign air carrier demonstrates that it will retain legal and actual possession of the aircraft;

h) The foreign air carrier provides evidence, for example, that the U.S.-certificated air carrier involved has conducted a safety audit of the foreign carrier, consistent with an FAA-approved safety audit program, and has submitted a report of that audit to the FAA for review; and

i) The FAA notifies the OST that it has determined that operational control of the proposed flights rest with the foreign air carrier applicant, that the oversight of the operation will remain with the country that issued the foreign air carrier's air operator certificate, and that the safety audit meets the standards of the U.S.-certificated air carrier's safety audit program.

OPSPEC A029—AIRCRAFT INTERCHANGE ARRANGEMENTS. Volume 3, Chapter 13, Section 5, Interchange Agreements, provides direction and guidance for processing and authorizing interchange arrangements. When an interchange arrangement is authorized, A029 must be issued to both parties of the interchange agreement by each responsible principal operations inspector. All interchange arrangements authorized for an operator must be listed in A029. Enter the name of the operator who would normally operate the aircraft if an interchange agreement were not in effect in the column labeled Primary Operator. List the name of the other party to the interchange agreement in the column labeled Interchange Operator. List the aircraft make/model/series of the aircraft used and all specified interchange points for each agreement in the appropriate columns. If it is necessary to specify other conditions or limitations such as expiration dates, they should be specified by adding text to A029.

OPSPEC A030—SUPPLEMENTAL OPERATIONS BY A CERTIFICATE HOLDER AUTHORIZED TO CONDUCT DOMESTIC OR FLAG OPERATIONS.

A. General.

1) A030 is an optional OpSpec that authorizes a 14 CFR part 121 certificate holder to conduct supplemental operations between airports listed for scheduled operations in that certificate holder's OpSpec C070. Principal operations inspectors (POI) may issue A030 to a certificate holder who is authorized in OpSpec A001 to conduct the following types of operations:

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- Domestic and supplemental.
- Flag and supplemental.
- Domestic, flag, and supplemental.

2) POIs may not issue A030 to a certificate holder who is only authorized to conduct supplemental operations because such a certificate holder is not issued an OpSpec C070. Thus, the certificate holder would be required to operate under supplemental rules at all times.

B. Authorizations.

1) Conducting Supplemental Operations in Accordance with Domestic or Flag Rules to Airports Listed in C070. OpSpec A030 subparagraph b authorizes a certificate holder with domestic and/or flag authority to conduct supplemental operations using domestic or flag rules, as applicable, between the regular, provisional, and refueling airports listed in the certificate holder's OpSpec C070. A030 may not be applied to airports listed solely as alternate airports.

2) Conducting Supplemental Operations in Accordance with Supplemental Rules to Airports Listed in C070. OpSpec A030 subparagraph c authorizes a certificate holder with domestic and/or flag authority to conduct supplemental operations between the airports listed in the certificate holder's C070 under supplemental rules.

3) Optional Nonstandard Provisions. OpSpec A030 contains a field in which POIs can enter optional/nonstandard text. This field is commonly referred to as "TEXT99." POIs may not issue nonstandard text to OpSpec A030 without obtaining prior approval from the Air Transportation Division (AFS-200).

OPSPEC/MSPEC/LOA A031—OUTSOURCED TRAINING: 14 CFR PART 91K, CONTRACT TRAINING; 14 CFR PARTS 121 AND 135, ARRANGEMENTS WITH TRAINING CENTERS, AIR AGENCIES, AND/OR OTHER ORGANIZATIONS FOR CERTIFICATE HOLDER TRAINING; 14 CFR PART 125, FLIGHT CREWMEMBER REQUIREMENTS; 14 CFR PART 125 LETTER OF DEVIATION AUTHORITY (LODA A125) HOLDERS.

A. General. OpSpec/MSpec/LOA A031 authorizes a certificate holder/operator/program manager to enter into a contract with an outside training organization to conduct the training, testing, and/or checking of crewmembers (pilots, flight engineers, and Flight Attendants (F/A)), aircraft dispatchers (part 121 domestic and flag), or other persons authorized to exercise operational control (part 121 supplemental) required by the applicable 14 CFR part. As detailed below, a contracted training organization may be another certificate holder, 14 CFR part 142 training center, program manager, or a training center not certificated under part 142.

1) Part 91K. In accordance with part 91, § 91.1075, a program manager may only contract with another part 91K program manager, a part 121 or part 135 certificate holder, a part 142 training center, or a training center not certificated under part 142 to conduct the training, testing, and/or checking required by part 91K.

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2) Part 121. In accordance with part 121, § 121.402, a part 121 certificate holder may only contract with another part 121 certificate holder or a part 142 training center to conduct the training, testing, and/or checking required by part 121.

3) Part 125. In accordance with part 125, § 125.296, part 125 certificate holders and part 125 Letter of Deviation Authority (LODA) holders may only contract with a part 142 training center to conduct the training, testing, and/or checking required by part 125.

4) Part 135. In accordance with part 135, § 135.324, a part 135 certificate holder may only contract with another part 135 certificate holder or a part 142 training center to conduct the training, testing, and/or checking required by part 135.

B. Applicability. LOA A031 is mandatory for part 125 LODA holders. OpSpec/MSpec A031 is optional for parts 91K, 121, 125, and 135 certificate holders/program managers.

C. Limitations and Provisions—Parts 91K, 121, and 135. A certificate holder or program manager must comply with the following limitations and provisions to operate under the authority granted by OpSpec/MSpec A031. The certificate holder/program manager must:

1) Ensure that all arrangements made with each training organization are fully compliant with the certificate holder/program manager's OpSpecs/MSpecs, the certificate holder/program manager's approved training program, and the CFRs.

2) Ensure that each contracted training organization conducts all training, testing, and/or checking in accordance with the certificate holder/program manager's applicable 14 CFR part and approved training program.

3) Ensure that each contracted training organization has adequate facilities, equipment, competent personnel, and an organizational structure to support the training, testing, and/or checking in accordance with the certificate holder/program manager's approved training program.

4) Have a program or method outlined in the approved training program that enables the certificate holder/program manager to detect, identify, and implement timely corrective action for all deficiencies detected in the training, testing, and/or checking provided by each training organization.

5) Ensure that each contract instructor, contract check pilot, and contract flight engineer conducting training, testing, and/or checking of the certificate holder/program manager's personnel is trained, qualified, and authorized to conduct the appropriate training, testing, and/or checking in accordance with the certificate holder/program manager's applicable 14 CFR part and approved training program.

6) Ensure that its aircraft configuration(s) and FAA-approved procedures are effectively supported by each training organization's equipment, training, testing, and/or checking. Additionally, the certificate holder/program manager must ensure that differences

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between its equipment and the training organization's equipment are addressed by conducting appropriate differences training.

D. Additional Limitations and Provisions—Part 91K. Part 91K program managers must also conduct a review and audit of each training agreement and organization at least once every 2 calendar-years from the date shown in the audit date column of Table 1 of A031. This review and audit must include an evaluation of the items listed in subparagraphs C1) through 6). Each audit with evaluation must be submitted to the program manager's principal operations inspector (POI) no later than the last business-day of the month following the due month. The date of the most recent audit must be entered into Table 1 of MSpec A031.

E. Additional Limitations and Provisions—Parts 121 and 135. Parts 121 and 135 certificate holders must also:

1) Conduct a standardization review of each training organization and provide the results of this review to the certificate holder's POI. A satisfactory standardization review must be submitted to the POI prior to the issuance of OpSpec A031 and the beginning of contract training, testing, and/or checking. (A sample standardization review is located in the Web-based Operations Safety System (WebOPSS) "Guidance" for OpSpec A031.)

2) Conduct initial and recurring audits of each training agreement and organization. Each audit must include an evaluation of the items listed above in subparagraphs C1) through 6), including an in-person evaluation of actual training, testing, and/or checking being conducted by the training organization for the certificate holder's crewmembers and/or aircraft dispatchers. The first audit must be completed and submitted to the POI within 60 days of the commencement of contract training, testing, and/or checking. Recurrent audits must be completed at least once every 24 calendar-months and submitted to the POI no later than the last business-day of the month following the due month. The date of the most recent audit must be entered into Table 1 of OpSpec A031. (A sample audit is located in the WebOPSS "Guidance" for OpSpec A031.)

3) Permit and facilitate access to its aircraft and cockpits by employees of each training organization for the purpose of maintaining their line-performance/line-observation currency as contract instructors and/or contract check pilots.

F. Additional Information. More detailed information regarding contracting with a part 142 training center can be found in Volume 3, Chapter 54, Section 5. POIs must review this information prior to issuing OpSpec/MSpec/LOA A031. POIs should refer to the A031 Job Aid contained in the WebOPSS "Guidance" for proper completion of Table 1.

OPSPEC A032—ADOPTION OF FLIGHT CREWMEMBER FLIGHT TIME LIMITATION RULES TO ESTABLISH FLIGHT ATTENDANT DUTY AND FLIGHT TIME LIMITATIONS AND REST RESTRICTIONS; MSPEC A032—FLIGHT ATTENDANT FLIGHT, DUTY, AND REST RULES. The program manager may be authorized to adopt the flightcrew member's flight, duty, and rest requirements for its flight attendants in accordance with written approved procedures as provided in part 91, § 91.1062(b) and described or referenced in MSpec A032.

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OPSPEC A033—TITLE 14 CFR PART 135 FLIGHT AND REST TIME LIMITATIONS FOR CERTAIN PART 121 ALL-CARGO OPERATIONS OR CERTAIN PART 135 OPERATIONS.

A. Part 121 Operations. Part 121 subparts Q, R, and S prescribe flightcrew member flight time limitation and rest requirements for part 121 domestic, flag or supplemental all-cargo operations. In accordance with part 121, §§ 121.470, 121.480, or 121.500 (as applicable to the kind of operation being conducted), a certificate holder may conduct certain part 121 all-cargo operations, in accordance with the flight, duty, and rest requirements of part 135, §§ 135.261 through 135.273. OpSpec A033 prescribes the conditions under which a certificate holder may apply these part 135 flight, duty, and rest requirements. The following conditions apply:

1) In accordance with §§ 121.470(a), 121.480, and/or 121.500, the OpSpec A033 authorization applies only to part 121 all-cargo operations conducted with airplanes having a passenger seat configuration of 30 seats or fewer and a payload capacity of 7,500 pounds or less.

2) The OpSpec A033 authorization applies only to those part 121 all-cargo operations defined in 14 CFR part 110, § 110.2 and § 121.583.

3) The certificate holder must describe its application and use of the OpSpec A033 authorization in its FAA-approved Fatigue Risk Management Plan (FRMP).

4) The OpSpec A033 authorization may not be applied to any part 121 passenger-carrying operation.

B. Part 135 Operations. Part 135 subpart F prescribes crewmember flight time and duty period limitations for part 135 operations. Section 135.261(b)(2) allows a certificate holder to conduct certain part 135 operations in accordance with the requirements of § 135.265 when OpSpec A033 is issued.

1) OpSpec A033 is the vehicle whereby the FAA authorizes a part 135 certificate holder to conduct certain flights in accordance § 135.265.

2) The certificate holder must describe the flights it intends to operate in accordance with § 135.265 in the text box provided in the part 135 A033 template, or in the part 135 section of the combination part 121/135 A033 template. A certificate holder may also reference the manual that contains the procedures for operating under the A033 authorization in lieu of describing actual flights.

MSPEC A033—FLIGHT AND REST TIME REQUIREMENTS. As allowed by part 91, § 91.1057(j), the program manager may be authorized to conduct program operations using the applicable unscheduled flight time limitations, duty period limitations, and rest requirements of part 121 or 135, instead of the flight time limitations, duty period limitations, and rest requirements of part 91 subpart K, as described in MSpec A033.

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OPSPEC/MSPEC A034—ADVANCED QUALIFICATION PROGRAM (AQP).

A. When to Issue OpSpec A034. Following initial/Phase IV approval, all Advanced Qualification Program (AQP) air carriers must be issued OpSpec paragraph A034. For all AQP documents and phases for which the Extended Review Team (ERT) is designated as the approval authority, the FAA manager AQP and the principal operations inspector (POI) or training center program manager (TCPM) will cosign the approval letters. Following approval for continuing operation (Phase V), the POI will manage and sign approved curriculum outline changes.

B. About AQP. AQP is a voluntary program; Flight Standards Service encourages air carriers to participate. AQP provides for enhanced curriculum development and a data driven approach to quality assurance along with the flexibility to target critical tasks during aircrew training. The AQP methodology directly supports the FAA's safety enhancement goals. The Voluntary Safety Programs Branch, AFS-230, will provide assistance to the Flight Standards District Office (FSDO), certificate management office (CMO), or Certificate Management Unit (CMU) from initial application through the final fleet approval as a collaborative effort. An accepted air carrier AQP application will initiate the AFS-230/FSDO/CMO/CMU partnership. AFS-230 will assist in the development, implementation, and review as well as follow on reviews for the air carrier's AQP. AFS-230 and the FSDO/CMO/CMU will manage program approvals and revisions through an ERT process.

C. Additional Information. More detailed information on AQP can be found in Volume 3, Chapter 21, The Advanced Qualification Program, Sections 1 through 5.

OPSPEC A035—U.S. REGISTERED AIRCRAFT—FOR PART 129 ONLY.

OPSPEC A036. RESERVED.

OPSPEC A037—BASIC 14 CFR PART 135 OPERATOR—COMMUTER AND ON DEMAND OPERATIONS. A016 was comprised of four different authorizations. Because of the new OPSS, the four authorizations were split into OpSpecs A037, A038, A039, and A040. The four types of operations authorized are: Single-Pilot Operators, Single Pilot-in-Command Operators, Basic Part 135 Operators (On-Demand Operations Only), and Basic Part 135 Operators (Commuter and On-Demand Operations). Further direction and guidance for certification of these types of operators are in Volume 2, Chapter 4, The Certification Process—Title 14 CFR Part 135, sections 1 through 6. Deviations are required to authorize a single pilot in command or a basic part 135 operator. The appropriate regulatory sections that an operator is authorized deviations from will also be listed in OpSpec A005.

OPSPEC A038—BASIC TITLE 14 CFR PART 135 OPERATOR—ON DEMAND OPERATIONS ONLY. A016 was comprised of four different authorizations. Because of the new OPSS, the four authorizations were split into OpSpecs A037, A038, A039, and A040. The four types of operations authorized are: Single-Pilot Operators, Single Pilot-in-Command Operators, Basic Part 135 Operators (On-Demand Operations Only), and Basic Part 135 Operators (Commuter and On-Demand Operations). Further direction and guidance for certification of these types of operators are in Volume 2, Chapter 4, The Certification Process—Title 14 CFR Part 135, sections 1 and 2. Deviations are required to authorize a Single Pilot in

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Command or a Basic Part 135 Operator. The appropriate regulatory sections that an operator is authorized deviations from will also be listed in OpSpec A005.

OPSPEC A039—SINGLE PILOT IN COMMAND OPERATOR (PART 135). A016 was comprised of four different authorizations. Because of the new OPSS, the four authorizations were split into paragraphs A037, A038, A039, and A040. The four types of operations authorized are: Single-Pilot Operators, Single Pilot-in-Command Operators, Basic Part 135 Operators (On-Demand Operations Only), and Basic Part 135 Operators (Commuter and On-Demand Operations). Further direction and guidance for certification of these types of operators are in Volume 2, Chapter 4, Section 2, Phase 2—Formal Application. Deviations are required to authorize a single pilot in command or a basic part 135 operator. Therefore, the appropriate regulatory sections that the operator is authorized deviations from must also be listed in OpSpec A005.

OPSPEC A040—(PART 135 AND 135/121 DATABASES ONLY) SINGLE PILOT OPERATOR (PART 135). A016 was comprised of four different paragraphs. Because of the new Operations Safety System, the four authorizations were split into paragraphs A037, A038, A039, and A040. The four types of operations authorized are: Single Pilot Operators, Single Pilot-in-Command Operators, Basic Part 135 Operators (On-Demand Operations Only), and Basic Part 135 Operators (Commuter and On-Demand Operations). Further direction and guidance for certification of these types of operators are in Volume 2, Chapter 4, Section 1. It is not required to issue an A005 for the single pilot operator for deviations from the requirements for an operations manual, management personnel and positions, and an approved pilot training program. However, OpSpec A005 must list other appropriate regulatory sections from which the operator is authorized deviations.

OPSPEC A041—PRETAKEOFF CONTAMINATION CHECK OR APPROVED ALTERNATE GROUND DEICING/ANTI-ICING PROCEDURE FOR TITLE 14 CFR PART 125/135 AIRPLANE OPERATIONS.

A. Part 125, § 125.221 and Part 135, § 135.227. These sections require part 125 and 135 certificate holders who operate in ground icing conditions to have approved aircraft pretakeoff contamination check procedures or an approved alternate ground deicing/anti-icing procedure to determine the airplane is free of frost, ice, or snow. Principal inspectors (PI) will issue OpSpec A041 to authorize a pretakeoff contamination check (not necessarily outside the aircraft) or the approved alternate procedure. A part 125 or 135 certificate holder may choose to comply with part 121, § 121.629(c) by having an approved ground deicing/anti-icing program, in which case the PI will issue OpSpec A023. See Volume 4, Chapter 8, Low Visibility Taxi Operations, for guidance on approving a ground deicing/anti-icing program.

B. OpSpec Paragraph A041. This paragraph will be used to authorize the use of the alternative procedure using the services of a provider with an approved § 121.629 program and thereby authorizing the use of the holdover times (HOT) as limiting values instead of as advisory information only. The conditions specified in this OpSpec must be complied with in order for the operator to use this alternate procedure. Before issuing the OpSpec the operator's General Operations Manual (GOM) and training program must be updated to include the elements contained in this guidance. The flightcrew, and, if appropriate, other ground personnel

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(example: persons charged with prearranging ground deicing services) must be trained as per the approved training program as updated to address the elements contained in this guidance. For an operator choosing to implement this alternate procedure, OpSpec A041 allows the operator to choose for each takeoff between conducting a pretakeoff contamination check in accordance with the Aircraft Flight Manual (AFM) or certificate holder's approved program within five minutes of takeoff, or, if authorized, and all the conditions of their approved alternate procedure and the OpSpec can be met, to use the holdover time/allowance times as limiting values. OpSpec A023 should not be issued for the purpose of authorizing this alternate procedure. This is an alternate procedure to conducting a pretakeoff contamination check and not in full compliance with the requirements of an approved § 121.629 program.

C. Approved Alternate Ground Deicing/Anti-icing Procedure. By providing this guidance for the development of an alternate ground deicing plan the FAA anticipates an improvement in the level of safety in winter operations by encouraging part 125 and 135 operators to develop aircraft ground de/anti-icing plans similar to an approved § 121.629 program. By incorporating the procedures outlined in this guidance and by incorporating and conducting the training specified, the operator will have available for use quality assured de/anti-icing fluids, applied with equipment meeting the proper specifications, and applied by qualified ground personnel under the quality assurances built into a § 121.629 approved ground deicing program. An operator under part 125 or 135 may choose to implement the alternate procedures for ground de/anti-icing as outlined in this guidance or continue to operate in ground icing conditions by conducting a pretakeoff contamination check within five minutes of takeoff using procedures in their approved ground deicing plan, and AFM limitations. Under these alternate procedure guidelines the operator is restricted to using the ground deicing services of an air carrier or an air carrier contract service provider conducting ground deicing service under an approved § 121.629 ground deicing program. Since the quality control requirements for the fluids and application equipment along with the activation of the program/plan as it relates to the ground service readiness is under the control of the holder of the § 121.629 approved program, the operator under these alternate procedures need not have policies and procedures for these elements in their alternate plan. Likewise, all ground deicing personnel are required to have been trained and qualified by the holder of the § 121.629 approved program being used, therefore the holder of these alternate ground deicing procedures must conduct only aircraft-specific training. In lieu of prior training of the ground deicing personnel on the specific aircraft, the flightcrew may, in person, supervise the de- /anti-icing process. This supervision must be supplemented by pictorial description (provided to the application personnel) of the aircrafts critical and sensitive surfaces indicating those areas that must be checked as part of the post deicing and anti-icing inspections. In order to use this flightcrew supervision provision the flightcrew must be trained on all fluid application procedure requirements except for actual hands on practice. In essence, the operator's ground de/anti-icing alternate procedures plan must contain all other elements of an approved § 121.629 program as detailed in the current edition of AC 120-60, Ground Deicing and Anti-icing Program, except as indicated above. The required elements of the operator's alternate procedure plan and required training is provided below. This guidance is extracted from AC 120-60 with limited additional guidance from other FAA ground deicing guidance material. In addition, inspectors and certificate holders should consult the AFS-200 Web site for current guidance.

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1) Required Ground De/Anti-Icing Elements. This paragraph describes ground de/anti-icing elements required to be contained in a part 125 and 135 alternate procedures in-lieu of a pretakeoff contamination check in order to be authorized the use of the current FAA-published fluid HOT as limiting time values rather than advisory times when utilizing the ground de/anti-icing service provider with an approved part 121, § 121.629 program.

a) Management Plan. In order to properly exercise operational control (when conditions are such that frost, ice, snow, or slush may reasonably be expected to adhere to an aircraft), the certificate holder should develop, coordinate with other affected parties, implement, and use a management plan for proper execution of its alternative de/anti-icing plan. A plan encompassing the following elements is acceptable:

1. Responsibility. Where operations are expected to be conducted in conditions conducive to ground icing, determine who is responsible for deciding when ground deicing/anti-icing procedures are in effect and the ambient conditions for implementing ground deicing procedures.

2. Manuals Requirements. The certificate holder should incorporate a detailed description of the deicing/anti-icing plan in its manuals for flightcrew members, flight followers, ground operations personnel, and management personnel to use when conducting operations under ground icing conditions. This description should include the functions, duties, responsibilities, instructions, and procedures to be used.

3. Coordination. The certificate holder should develop a winter operations plan to include procedures for coordination with the deicing service provider, air traffic control (ATC), and airport authorities as appropriate.

b) De/Anti-icing Fluid Application Procedures. In an appropriate manual, certificate holders must specify the deicing and anti-icing fluid procedures for each type of aircraft operated. Thickened anti-icing fluids (Type II, III, and IV), may only be used on aircraft that the aircraft manufacturer has provided documentation that these fluids are safe to be used on that make and model aircraft. Type I deicing fluid may be used on any aircraft with a takeoff rotation speed of 65 knots or greater with an outside air temperature of -19 C or warmer. In order to use the HOT as limiting time values the de/anti-icing service must be provided by an operator with an approved de/anti-icing program approved under § 121.629 or a contract provider to that operator under the operators approved § 121.629 approved program. Ground personnel trained and qualified to apply deicing and anti-icing fluid, in accordance with a certificate holder's approved § 121.629 program, do not require additional training and qualification to deice and anti-ice similar aircraft operated by another certificate holder. If the deicing service provider has been trained by another part 125 or 135 air carrier using an alternate deicing procedures in accordance with this guidance for the same type of aircraft additional training under the provisions of this guidance is not required. However, specific training and/or direct flightcrew supervision, supplemented with pictorial descriptions of the de/anti-icing procedures to be used identifying the critical aircraft surfaces, sensitive areas, and areas to be checked in the post deicing and post anti-icing inspections is needed for deicing personnel to deice different types of aircraft or aircraft with different configurations.

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c) HOT Tables and Procedures for Their Use. The operator's alternate ground de/anti-icing procedures must include HOT tables and the procedures for the use of these tables by the certificate holder's personnel. The following elements must be included in the operator's alternate plan:

1. Responsibilities and Procedures. The certificate holder's program must define operational responsibilities and contain procedures for the flightcrew, ground personnel, and maintenance personnel that apply to the use of HOTs and resultant actions if the determined HOT is exceeded.

a. Procedures to address deicing operations at specific deicing locations (e.g., gate, remote, or centralized facilities, engines running/not running, auxiliary power unit (APU), etc.), including how to determine radio frequencies to be utilized for communications between the flightcrew and the ground personnel.

b. Procedures for ground crew and flightcrew to communicate:

- During aircraft positioning, (if required),
- Other pertinent information regarding the deicing/anti-icing process,
- Start of the HOT (start time of final fluid application),
- The aircraft departure process from the deicing area, and
- Equipment clear/job done (post de/anti-icing inspections completed)—safe to start taxiing.

c. In addition, procedures must be developed for the flightcrew's use of the pertinent HOT tables, coordination with flight followers and ATC as appropriate.

2. FAA HOT Tables. An operator's alternate procedure must implement HOT tables for use by its personnel. The FAA develops HOT tables for Type I deice/anti-ice fluid and manufacturer specific and generic Type II, III, and IV anti-ice fluid in accordance with SAE ARP 4737, Aircraft Deicing/Anti-Icing Methods, and ISO 11076, Aerospace Aircraft Deicing/Anti-Icing Methods with Fluids. HOTs that exceed those specified in the current edition of the FAA specific HOT of approved fluids are not acceptable. However, the certificate holder may require the use of more conservative times than those specified in the FAA tables.

3. Use of HOT Tables. HOT ranges are an estimate of the time that deicing/anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the unprotected surfaces of an aircraft. HOT begins when the start of the final application of deicing/anti-icing fluid commences and expires when the deicing/anti-icing fluid applied to the aircraft loses its effectiveness (e.g., when ice begins to form on or in the fluid). HOTs vary with weather conditions. The effectiveness of deicing/anti-icing fluids is based on a number of variables (e.g., temperature, moisture content of the precipitation, wind, and the aircraft skin temperature). The HOT tables are to be used for departure planning and in conjunction with pretakeoff check procedures.

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d) Frozen Contaminants on the Aircraft. The operators must have procedures that insure the aircraft is free of all frozen contaminants adhering to the wings, control surfaces, propellers, engine inlets, or other critical surfaces before takeoff.

1. Identification of Critical Aircraft Surfaces. The critical aircraft surfaces, which must be clear of contaminants before takeoff should be described in the aircraft manufacturer's maintenance manual or other manufacturer-developed documents, such as service or operations bulletins.

a. Generally, the following should be considered to be critical aircraft surfaces, if the aircraft manufacturer’s information is not available:

- Pitot heads, static ports, ram-air intakes for engine control and flight instruments, other kinds of instrument sensor pickup points, fuel vents, propellers, and engine inlets. These are both critical areas for flight safety and classified as sensitive surfaces because they may be adversely affected by direct de/anti-icing fluid application and therefore require special attention during cold weather preflight and fluid application.
- Wings, empennage, and control surfaces.
- Fuselage upper surfaces on aircraft with center mounted engine(s).

b. Certificate holders must list in the general operations manual, for each type of aircraft used in their operations, the critical and sensitive surfaces that should be checked on flight-crewmember preflight inspections, pretakeoff checks, and pretakeoff contamination checks.

c. Critical surfaces must be defined for the use of ground personnel for conducting the check following the deicing/anti-icing process and for any pretakeoff contamination checks that may be accomplished by ground personnel.

2. Identification of Representative Aircraft Surfaces (if used in place of critical surfaces). Representative aircraft surfaces are for use in conducting pretakeoff checks only; this is not to be confused with pretakeoff contamination check requirements. For each type of aircraft operated, certificate holders should list, in the general operations manual, the representative surfaces that may be checked while conducting pretakeoff checks. Some aircraft manufacturers have identified certain aircraft surfaces that the flightcrew can readily observe to determine whether or not frozen contaminants are accumulating or forming on that surface and, by using it as a representative surface, can make a reasoned judgment regarding whether or not frozen contaminants are adhering to other aircraft surfaces. When identifying a representative aircraft surface, the following guidelines should be considered:

a. The surface can be seen clearly to determine whether or not frozen contaminants are forming or accumulating on the surface and if the estimated HOT is valid considering the precipitation conditions actually present.

b. The surface must be unheated.

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c. If using a treated surface during the deicing/anti-icing procedure, the representative surface should be one of the first surfaces treated with deicing/anti-icing fluid. However, the designation of representative surfaces is not limited to treated surfaces.

3. Recognition Techniques. Certificate holders must have aircraft specific guidance for the recognition of contamination on aircraft surfaces. The flightcrew and other personnel should use these type-specific techniques while conducting preflight aircraft icing checks, pretakeoff checks, and pretakeoff contamination checks. Frozen contaminants can take the form of ice, frost, snow, or slush. Initial, Transition, Recurrent, Upgrade, or Advanced Qualification Program and Continuing Qualification training curricula should include aircraft type-specific techniques for use by the flightcrew and other personnel for recognizing contamination on aircraft surfaces. The flightcrew and other personnel should use these type-specific techniques while conducting preflight aircraft icing checks, pretakeoff checks, and pretakeoff contamination checks. Frozen contaminants can take the form of ice, frost, snow, or slush. The formation of clear ice may be difficult to detect visually. Therefore, specific techniques for identification of clear ice should be included.

e) Types of Icing Checks. The operator's alternate ground deicing/anti-icing plan must include procedures for pretakeoff and pretakeoff contamination checks that, when applicable, are required to be accomplished. The aircraft deicing/anti-icing procedure must also include a post deicing/anti-icing check of all aircraft critical surfaces.

1. Pretakeoff Check (within the HOT, not to be confused with a pretakeoff contamination check that is applied after the expiration of the HOT). This check is required anytime HOT are used. The flightcrew must accomplish the check within the HOT. The flightcrew should check the aircraft's wings or representative aircraft surfaces for frozen contamination. The surfaces to be checked are determined by manufacturer's data or guidance contained in AC 120-60, current edition. The pretakeoff check is integral to the use of HOTs. Because of the limitations and cautions associated with the use of HOTs, the flightcrew must assess the current weather and other situational conditions that affect the aircraft's condition and not rely on the use of HOTs as the sole determinant that the aircraft is free of contaminants. Several pretakeoff checks may be required during the HOT period based on factors that include the length of the HOT range, weather, or other conditions. The flightcrew must maintain a continued awareness of the condition of the aircraft and accomplish, as a minimum, a pretakeoff check just before taking the active runway for departure. When conducting the pretakeoff check, the flightcrew must factor in the application sequence (i.e., where on the aircraft the de/anti-icing process began).

2. Pretakeoff Contamination Check (when HOT has been exceeded). Completing a pretakeoff contamination check is one of the conditions that allows a takeoff after a HOT has been exceeded. When a HOT has been exceeded, certificate holders must have appropriate pretakeoff contamination check procedures for the flightcrew's and/or other qualified ground personnel's use to ensure that the aircraft's critical surfaces remain free of frozen contaminants. Flightcrews and/or other qualified ground personnel must complete the pretakeoff contamination check within 5 minutes before beginning takeoff. This check must be accomplished from outside the aircraft unless the certificate holder's program specifies otherwise. If any doubt exists concerning the aircraft's condition after completing this check, the

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aircraft cannot takeoff unless it is deiced again and a new HOT is determined. The following should be considered while developing procedures for this check:

a. For all hard wing aircraft (those without leading edge devices) this check must be an outside the aircraft tactile check (feel). For all high wing aircraft this check must also be an outside the aircraft check and maybe visual or tactile based on the aircraft manufacturers procedures or as approved by the FAA. Also aircraft with aft, fuselage-mounted, turbine-powered engines must conduct pretakeoff contamination checks from outside the airplane.

b. Operators of aircraft other than those addressed in paragraph a) above, should conduct this check from outside the aircraft unless they can show that the check can be adequately accomplished from inside the aircraft. The operators plan must detail procedures and requirements for this check. When developing a procedure—not described in the AFM—for conducting the pretakeoff contamination check from inside the aircraft, certificate holders should consider if crewmembers are able to see enough of the wings, control surfaces, and other surfaces to determine whether or not they are free of contaminants. When making this determination, consider the aircraft type, the method of conducting the check (from the cockpit or cabin), and other factors, such as aircraft lighting and ambient conditions.

3. Post-Deicing/Anti-Icing Check. The operator must have procedures outlining these check procedure for each aircraft. This multi-part check is an integral part of the deicing/anti-icing process. The check ensures that:

a. All critical surfaces are free of adhering frozen contaminants after deicing.

b. If anti-icing fluid is to be applied it assures that all critical surfaces are free of frozen contaminants before the application of any anti-icing fluid.

c. All critical surfaces are free of frozen contaminants before pushback or taxi. And if anti-icing fluid has been applied that all critical surface have been treated with an even coating of the applicable fluid.

NOTE: Certificate holders must have procedures that require that qualified ground personnel or flightcrew personnel conduct this check. If conducted by qualified ground personnel, certificate holders should establish communication procedures to relay pertinent deicing/anti-icing information and the results of this check to the pilot in command (PIC).

f) Communications. The operator must have standardized communication procedures for communications between the flightcrew and ground deicing personnel. Communication between ground personnel and the flightcrew before commencing deicing/anti-icing operations is critical. Upon completion of deicing/anti-icing operations, ground personnel should communicate with the flightcrew to determine the start time of the final fluid application procedure and therefore the start of the HOT. The particular HOT the flightcrew uses is extremely critical. Because many deicers service multiple carriers, the FAA recommends

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that all operators include the following flow sequence and information to provide standardization:

1. Before commencing deicing/anti-icing operations, ground personnel and the flightcrew should review the following (as applicable):

a. Deicing/anti-icing prior to crew arrival.

b. Gate or remote deicing/anti-icing procedures.

c. Aircraft-specific procedures.

d. Communications between ground personnel and the flightcrew.

2. Just before commencing the application of deicing/anti-icing fluid, ground personnel should confirm with the flightcrew that the aircraft is properly configured for deicing, as the following example states: "N90FAA, is your aircraft ready for deicing/anti-icing?" Response from N90FAA, "Learjet N90FAA, parking brake is set, engines are running, APU is off, aircraft is configured for deicing, and anti-icing with Type IV fluid." Response from deicing crew, "Roger N90FAA commencing deicing."

3. Upon completion of deicing/anti-icing, the flightcrew must be provided the following elements:

a. Fluid type (e.g., Type I, Type II, Type III or Type IV), the fluid product name is optional for each type of fluid if the fluid meets product on-wing viscosity requirements.

b. Fluid/water mix ratio by volume of Types II, III, and IV. (Reporting the concentration of Type I fluid is not required.)

c. Specify, in local time (hours and minutes) the beginning of the final fluid application (e.g., 1330).

d. Post application check accomplished. Specify date (day, written month, year).

NOTE: The element listed in subparagraph 3d is required for recordkeeping; it is optional for crew notification.

NOTE: Transmission of elements listed in subparagraphs a through c, to the flightcrew, confirms that a post deicing/anti-icing check was completed and the aircraft is clean.

4. Below are two examples of the ground/flightcrew communication sequence.

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a. One Step Process with Type I or other approved deicing fluid: "N90FAA are you ready for your deicing report?" "N90FAA is ready to copy deicing report." "N90FAA your aircraft has been deiced with Type I fluid. Your fluid application began at 1430."

b. Two Step Process with Types II, III, or IV: "N90FAA are you ready for your deicing report?" "N90FAA is ready to copy deicing report." "N90FAA your aircraft has been deiced with Type I fluid and anti-iced with Type IV. An anti-ice fluid mixture of 75/25 was used. Your anti-ice fluid application began at 1645."

2) Training Requirements Required for the Authorization of the Alternate Procedures Allowing the Use of HOT as Limiting Values. Training for flight followers is only required if that person plays a role in the planning, execution, or recording of aircraft ground de/anti-icing. Training for ground deicing personnel is only required if each de/anti-icing fluid application is not to be supervised by flightcrew personnel.

a) Initial/Recurrent Ground Training and Qualification. Only trained and qualified personnel may carry out deicing/anti-icing procedures. A flightcrew member trained on fluid application procedures for the applicable aircraft and operator may, in person, supervise the de/anti-icing of the aircraft in lieu of the fluid application personnel being trained on the specific aircraft, provided the application personnel have been appropriately trained and currently qualified under a § 121.629 approved program and the application personnel are provided pictorial diagrams indicating the critical and sensitive areas of the aircraft, and areas to be inspected as part of the post deicing and post anti-icing inspection, and instructed on the proper methods for treatment of the critical and sensitive areas.

1. Each certificate holder's approved program must consist of the following:

a. Certificate holders must conduct initial and annual recurrent training for flightcrews, and, as applicable, flight followers, and ground personnel and must ensure that all such crews obtain and retain a thorough knowledge of aircraft ground deicing/anti-icing policies and procedures, including required procedures and lessons learned.

b. Flightcrew, and, as applicable, flight follower, and ground personnel training programs must include a detailed description of initial and annual recurrent ground training and qualification concerning the specific requirements of the alternate plan and the duties, responsibilities, and functions detailed in the plan.

c. Flightcrew, and, as applicable, flight follower, and ground personnel training programs must have a Quality Assurance Program to monitor and maintain a high level of competence. An ongoing review plan is advisable to evaluate the effectiveness of the deicing/anti-icing training received.

d. The program must have a tracking system that records all required personnel have been satisfactorily trained. Certificate holders must maintain records of personnel training and qualification for proof of qualification.

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e. Personnel must be able to adequately read, speak, and understand English in order to follow written and oral procedures applicable to the deicing/anti-icing program.

2. Certificate holders must train and qualify flightcrew, and as applicable flight followers, and ground personnel on at least the following subjects, identified as All personnel (no identification) Flightcrew (F), Flight Followers (FF) (persons charged with pre-arranging of ground deicing services), if applicable to the operators operation, or Ground Personnel (G) if applicable, all pilots that supervise the application of de/anti-icing fluids need to be trained on the subjects for Ground personnel (G) except for hands on training of fluid application techniques:

a. Effects of Frozen Contaminants on Aircraft Surfaces. Provide an understanding of the critical effect the presence of minute amounts of frost, ice, or snow has on flight surfaces. This discussion should include, but is not limited to:

- Loss of lift (F),
- Increased drag and weight (F),
- Decreased control (F),
- Tendency for rapid pitch-up and roll-off during rotation (F),
- Stall occurs at lower-than-normal angle of attack (F),
- Buffet or stall occurs before activation of stall warning (F),
- Aircraft specific areas: (F/G),
- Engine foreign object damage potential,
- Ram air intakes,
- Instrument pickup points,
- Leading edge device (LED) aircraft (aircraft that have slats or leading edge flaps) and non-LED aircraft,
- Airworthiness Directives (AD)/specific inspections, and
- Winglets.

b. Aircraft Ground Icing Conditions. Describe conditions that cause implementation of deicing/anti-icing procedures (F).

- In-Flight Ice Accumulation. Certificate holders should have procedures for flightcrews on arriving flights to report occurrences of in-flight icing to the personnel responsible for executing the certificate holder's deicing/anti-icing program. In-flight ice accumulation could result in a ground-deicing situation when flights are scheduled for short turnaround times (e.g., for 30 minutes or less and when ambient temperatures on the ground are at or below freezing).
- Frost, including hoarfrost (F).
- Freezing precipitation (snow, freezing rain, freezing drizzle, or hail, which could adhere to aircraft surfaces) (F).
- Freezing fog (F).

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- Rain or high humidity on cold soaked wing (F).
- Rain or high humidity on cold soaked wing fuel tanks (F).
- Under-wing frost (may not require deicing/anti-icing within certain limits) (F/G).
- Fluid failure identification (F/G).

c. Location specific deicing/anti-icing procedures (F/G, as appropriate).

d. Communications procedures between the flightcrew, ground personnel, ATC, and company station personnel (F/FF/G).

NOTE: Communication procedures must include ground crew confirmation to the flightcrew after the deicing and anti-icing process is completed that all personnel and equipment are clear before reconfiguring or moving the aircraft.

e. Means for obtaining most current weather information (F/FF).

f. Characteristics and capabilities of fluids used (F/D/G).

- General fluid descriptions (F/G),
- Composition and appearance (F/G),
- Differences between Type I and Type II/IV deicing/anti-icing fluids (F/G),
- Purpose for each type (F/G),
- Deicing fluids (F/G),
- Anti-icing fluids (F/G),
- De/anti-icing fluids capabilities (F/G),
- Approved deicing/anti-icing fluids for use (SAE, ISO, etc.) (F/G),
- Fluid-specific information provided by fluid or aircraft manufacturer (F/G),
- Fluid temperature requirements (hot vs. cold) (F/G),
- Properties associated with infrared deicing/anti-icing (F/G),
- Health, safety, and first aid (F/G),
- Environmental considerations (G),
- Fluid selection (F/G), and
- Unusual flying qualities, such as the need for additional takeoff rotation stick-force (F).

g. Methods/Procedures (F/G).

- Inspection of critical surfaces,
- Clear ice precautions,
- Flightcrew/groundcrew preflight check requirement,
- Deicing/anti-ice determination,
- Deicing/anti-ice location,
- Communication before deicing/anti-icing,

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- General deicing/anti-ice precautions,
- Aircraft specific requirements,
- Deicing:
- Requirements,
- Effective removal of frost, snow, and ice.
- Anti-icing:
- Requirements
- Preventative anti-icing,
- Application,
- Deicing/anti-icing:
- One step,
- Two step,
- Guidelines for the application of deicing/anti-icing fluids,
- Post deicing/anti-icing checks requirement,
- Flight control check, and
- Communications after deicing/anti-icing.

h. Use of HOTs (F/G).

- Definition of HOT;
- When HOT begins and ends;
- Limitations and cautions associated with the use of HOTs;
- Source of HOT data;
- Relationship of HOT to particular fluid concentrations and for different types of fluids;
- Precipitation category (e.g., fog, drizzle, rain, or snow);
- Precipitation intensity;
- How to determine a specific HOT from the HOT range that accounts for moderate or light weather conditions; and
- Adjusting HOT for changing weather conditions.

i. Pretakeoff Check Requirement (F/G). Identification of representative surfaces.

j. Pretakeoff Contamination Check Requirement (F/G). Communications.

k. Aircraft Surface Contamination Recognition (F/G).

3) Confirmation of Service Provider Qualification. The operator must have procedures for the flightcrew to determine that ground de/anti-icing service providers are providing their service under a current approved § 121.629 aircraft ground deicing program. These procedures must include a regular check, by the operator, to ensure the currency of the service providers continued approval status under § 121.629. The flightcrew instructions must be clear that if the service provider's approval under § 121.629 cannot be assured that the HOT

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tables revert to being advisory information only and a pretakeoff contamination check per the applicable procedures must be performed.

4) Recording Requirements. The operator's plan must include procedures for the recording of the location that de/anti-icing was performed, the name of the provider, the type of fluid and mixture used, the final fluid application start time, and the takeoff time. This record may be included as part of an existing record requirement (example: aircraft discrepancy log). This record must be retained and made available to the FAA upon request for a period of at least 12 calendar-months.

OPSPEC A042—TITLE 14 CFR PART 125/135 AIRPLANE OPERATIONS WITHOUT A DEICING/ANTI-ICING PROCEDURE WHEN GROUND ICING CONDITIONS DO NOT EXIST. If a part 125 or 135 operator chooses to operate without a pre takeoff contamination check as required by part 125, § 125.221 and part 135, § 135.227, or without a part 121, § 121.629(c) program, then principal inspectors may only authorize them to operate when ground icing conditions do not exist by issuing OpSpec A042. See Volume 3, Chapter 27, Ground Deicing/Anti-Icing Programs, for guidance on approving a ground deicing/anti-icing program.

MSPEC A043—AFFILIATE PROGRAM MANAGERS. MSpec A043 allows fractional owners to use program aircraft operated by the program manager's affiliate's program. The program manager certifies to the Administrator that the affiliate program manager listed in MSpec A043 meets the requirements of part 91 subpart K.

OPSPEC A044—(PART 133 DATABASE ONLY) CLASS D OPERATIONS INVOLVING CARRIAGE OF PERSONS. (TBD.)

OPSPEC A045—SUBSTITUTE SCHEDULED SERVICE AS A SUPPLEMENTAL OPERATOR. (TBD.)

OPSPEC A046—SINGLE-ENGINE IFR PASSENGER CARRYING OPERATIONS UNDER 14 CFR PART 135. A046 is issued to authorize single-engine instrument flight rules (SEIFR) passenger-carrying operations under part 135. Additional Maintenance Requirements OpSpec paragraphs D100–104, must be issued as applicable. The operator must meet the conditions part 135, § 135.163 and other appropriate sections, to be issued the authority to operate under IFR with passengers or a combination of passengers and cargo. A046 provides the operational limitations and provisions necessary to operate under IFR while carrying passengers in a single-engine aircraft. The principal operations inspector, principal maintenance inspector, and principal avionics inspector must coordinate the issuance of A046 and the applicable Part D paragraphs (by the authority of 119, § 119.51(b)). Once the operator has met the requirements to conduct SEIFR operations, all the applicable OpSpec paragraphs must be issued for SEIFR authorization.

OPSPEC/MSPEC A047. REPLACED BY OPSPEC A447.

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OPSPEC A048—FLIGHT DECK ACCESS AUTHORIZATION PROCEDURES.

A. General. Operations specification (OpSpec) A048 is provided for a 14 CFR part 119 certificate holder that elects to have an approved program to allow persons eligible under part 121, § 121.547(a)(3) access to the flight deck using the Cockpit Access Security System (CASS) program and/or the Flight Standards Service (AFS) Flight Deck Access Restriction (FDAR) program in accordance with the limitations and provisions of the OpSpec. It is important to note that the Transportation Security Administration (TSA) may restrict flight deck access through the issuance of Security Directives (SD). The TSA also evaluates and approves (or denies) use of any system that is used to vet persons requesting flight deck access, such as CASS.

B. CASS Participation. CASS is a voluntary program. It is acceptable if an individual operator does not elect to participate. If they do decide to use the CASS, they must meet all of its criteria.

1) An airman certificate is not specifically required for CASS, as not all persons eligible for flight deck access need one (e.g., flight followers).

2) CASS is not an FAA program. However, it is available to air carriers for use in determining identification and eligibility of individuals seeking access to flight deck jump seats. CASS accommodates most positions that are eligible for flight deck access, such as flightcrew members and flight followers. An air carrier should contact ARINC's CASS representative directly with questions about program accommodation for specific position(s) that are eligible for flight deck access.

3) If the Director of Operations (DO) elects to delegate the task of auditing the database, the DO retains full responsibility for its accuracy, completeness, currency, etc.

C. Background. In the past, the TSA, industry, and FAA agreed upon the use of a valid passport when using this system.

1) Since that agreement, technology has advanced to the point that an individual's photograph is now a required element of that person's electronic record in the CASS system.

2) A passport is no longer specifically required for CASS participation.

3) TSA has issued a SD that requires an air carrier to include digitized pictures of persons participating in CASS before that air carrier is approved for participation by the TSA.

4) Also, as the guidance states, TSA may impose further restrictions on flight deck access through issuance of SDs.

D. Table 3-6D, Operations Specification A048 Manual Procedures Checklist. The checklist in Table 3-6D should be used to ensure the part 119 certificate holder's manual procedures for the required verification and access procedures for accessing the flight deck jump seat meets requirements. The appropriate sections of this checklist should be completed by the

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operator and provided to that operator's FAA principal operations inspector (POI) along with their request for amendment of their OpSpecs to include OpSpec A048.

1) The certificate holder may elect to include procedures for one or both of the following verification programs in its manual procedures:

a) CASS.

b) FDAR.

2) The checklist should be completed using the following methodology:

a) Number (item and sub item number).

b) Item description (provide a description of the item).

c) Response (circle "Yes" or "No" to indicate whether or not the item is adequately addressed in the program).

d) Manual page reference (enter the manual page number where the item is addressed).

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Table 3-6D. Operations Specification A048 Manual Procedures Checklist

NO.	ITEM DESCRIPTION	RESPONSE	MANUAL PAGE REFERENCE
1.	Do the certificate holder's procedures include a requirement to obtain the requester's employer-issued photo identification card?	Yes/No	
2.	Does the certificate holder's procedures include a requirement to verify at the time of check-in the information obtained from the person requesting flight deck jump seat access using one of the following methods (the certificate holder may select one or more of the following methods):		
2.a.	CASS?	Yes/No	
2.b.	FDAR - Electronic Database?	Yes/No	
2.c.	FDAR - Telephone?	Yes/No	
2.c-i.	*If yes*, do the certificate holder's procedures contain a list of part 119 certificate holders with which flight deck jump seat agreements are in place and the respective contact numbers and/or email addresses for use in employee flight deck jump seat eligibility and employment status verification?	Yes/No	
2.d.	FDAR - Email?	Yes/No	
2.d-i.	*If yes*, do the certificate holder's procedures contain a list of part 119 certificate holders with which flight deck jump seat agreements are in place and the respective contact numbers and/or email addresses for use in employee flight deck jump seat eligibility and employment status verification?	Yes/No	
2.e.	FDAR - Facsimile?	Yes/No	
2.e-i.	If yes, do the certificate holder's procedures contain a list of part 119 certificate holders with which flight deck jump seat agreements are in place and the respective contact numbers and/or email addresses for use in employee flight deck jump seat eligibility and employment status verification?	Yes/No	
3.	Does the certificate holder's procedures assign responsibility to the Director of Operations for:		

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NO.	ITEM DESCRIPTION	RESPONSE	MANUAL PAGE REFERENCE
3.a.	Completion of an initial audit to confirm accuracy of employee records used under this operations specification authorization?	Yes/No	
3.b.	Completion of recurring audits to confirm accuracy of employee records used under this operations specification authorization at least once every 12 months?	Yes/No	
3.c.	Updating any and all employee status changes of the employee records used in accordance with this authorization within 12 hours of the time that the change(s) occurred?	Yes/No	
4.a.	Has the certificate holder satisfactorily demonstrated their software and procedures to the principal operations inspector?	Yes/No	N/A
4.b.	Did the demonstration reveal any instances where flight deck jump seat access was granted when it should have been denied?	Yes/No	N/A
5.	Did the initial audit (see item 3.a. above) reveal any records representing former employees as current employees?	Yes/No	N/A
6.	Is the certificate holder in receipt of an applicable TSA authorization to use a vetting system for persons requesting flight deck access (e.g., CASS)?	Yes/No	

OPSPEC/MSPEC A049. REPLACED BY OPSPEC/MSPEC A449.

LOA A049—LETTER OF AUTHORIZATION FOR COMMERCIAL AIR TOUR OPERATIONS AND ANTIDRUG AND ALCOHOL MISUSE PREVENTION PROGRAM REGISTRATION.

A. Applicability.

1) Letter of Authorization (LOA) A049, Letter of Authorization for Commercial Air Tour Operations and Antidrug and Alcohol Misuse Prevention Program Registration, applies to 14 CFR part 91 operators that conduct commercial air tour operations for compensation or hire under part 91, § 91.147.

2) When issuing part 91 authorization from the Web-based Operations Safety System (WebOPSS), at a minimum, A001, Issuance and Applicability, and A004, Summary of Special Authorizations and Limitations, templates must be included in the operator's package.

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NOTE: If a part 91 operator is not already identified in WebOPSS, refer to the Certificate-Holding District Office (CHDO) – User Manual available under the Tools menu in WebOPSS for instructions on how to "Add an Operator." For further assistance, please email WebOPSS Support at AFS-WebOPSS@faa.gov.

B. Commercial Air Tours (Defined in 14 CFR Part 136, § 136.1). These operations are passenger-carrying flights conducted in accordance with § 91.147. As of September 11, 2007, all operators or certificate holders must have applied for and have been operating in accordance with LOA A049, issued by the FSDO nearest its principal place of business. The seven items listed in § 91.147(c) represent the minimum information required for the issuance of LOA A049 to part 91 operators:

1) Name of operator, agent, and any doing business as (DBA) under which that operator does business (LOA A001).

2) Principal business address and mailing address (LOA A001).

3) Principal place of business (if different from business address) (LOA A001).

4) Name of person responsible for management of the business (LOA A049).

5) Name of person responsible for aircraft maintenance (LOA A049).

6) Type of aircraft, registration number(s), and make, model, and series (M/M/S) (LOA A049).

7) A copy of the Antidrug and Alcohol Misuse Prevention Program registration (LOA A049). This information is used to populate Table 3 (Location of Records for Inspection) in LOA A049. The population of this table "activates/registers" the drug abatement program for future inspection by the Drug Abatement Division (AAM-800).

NOTE: The operator must implement its drug and alcohol testing programs in accordance with 14 CFR part 120.

C. Combining Drug and Alcohol Testing Programs. The CFRs permit 14 CFR part 121, 121/135, and 135 operations also approved for § 91.147 commercial air tour operations the option to combine drug and alcohol testing programs. Operating a combined program is voluntary and requires the operator prior to the combined operation to:

- Advise the CHDO that safety-sensitive employees will be included under the parts 121, 121/135, and/or 135 drug and alcohol testing program; and
- Advise AAM-800 that all safety-sensitive employees will be included under the parts 121, 121/135, and/or 135 testing program.

1) Revisions to LOA A049 regarding combining drug and alcohol testing programs applies to parts 121, 121/135, and/or 135 certificate holders that also conduct commercial air tour operations under § 91.147.

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2) Upon request of a 14 CFR part 119 certificate holder to operate a combined program that includes its commercial air tour operation, the CHDO will annotate A049, Table 3, Telephone Number, as "A3," followed by the part 121, 121/135, or 135 certificate number (see Figure 3-70, Example A049 Table 3 for a Program Included in Air Carrier's Program).

Figure 3-70. Example A049 Table 3 for a Program Included in Air Carrier's Program

Location & Telephone of Antidrug and Alcohol Misuse Prevention Program Records:	
Telephone Number:	A3 (ADD AIR CARRIER CERTIFICATE NUMBER HERE)
Address:	
Address:	
City:	
State:	
Zip Code:	

EXAMPLE: A part 135 air carrier also conducts § 91.147 commercial air tours (e.g., Air Tours America (ATA)). The part 135 certificate holder employs ATA's pilots. The part 135 certificate holder must implement a drug and alcohol testing program and document the program records information in Operations Specification (OpSpec) A449, Antidrug and Alcohol Misuse Prevention Program; it may elect to include ATA's employees in its part 135 drug and alcohol testing program. To conduct air tour operations under § 91.147, ATA must also have a part 91 air tour operator established in WebOPSS with LOAs A001, A004, and A049 issued. To indicate the combined testing program in LOA A049, annotate "A3" in the telephone number field, as shown above. Use the 8-digit certificate number. Use one space between "A3" and the certificate number.

3) FAQs:

Question	Answer	Explanation
Is the part 121, 121/135, or 135 operator conducting § 91.147 air tours required to combine drug and alcohol testing programs?	No	Combining is optional to the operator. If a part 121, 121/135, or 135 operator who conducts § 91.147 air tours elects to operate a combined program, it must advise its CHDO and AAM-800 immediately. Failure to do so is subject to violation of part 120 and certain confidentiality provisions of Title 49 of the Code of Federal Regulations (49 CFR) part 40.
Should I, as principal operations inspector (POI), verify parts 121, 121/135, and/or 135, or § 91.147 operations are in compliance with the Drug and Alcohol Testing Program regulations prior to or after issuing an LOA A049 or A449?	No	Operators and CHDOs with questions and compliance concerns should contact AAM-800 at 202-267-8442 or drugabatement@faa.gov.

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Question	Answer	Explanation
What regulatory oversight does the CHDO have regarding an operator's combined drug and alcohol testing programs in the absence of the revisions included in this section?	Limited	CHDO regulatory oversight pertains to issuance, amendment, and cancellation of LOAs, including A049 and OpSpecs (including A449). Questions? Contact AAM-800 at 202-267-8442 or drugabatement@faa.gov.

D. Special Agreements. Some operators may have agreements with other offices of the FAA, such as the Air Traffic Organization (ATO), directly or through industry associations to conduct flights in a certain way or airspace. Such special agreements should be documented in LOA A049. Documentation of these agreements in LOA A049 neither implies nor requires the agreements be approved by the CHDO.

NOTE: Section 136.3 permits amendment and reconsideration of LOAs through part 119, § 119.51.

E. Hawaiian Air Tour Operators. Hawaiian air tour operators conducting these commercial air tour operations under § 91.147 must be issued LOA A049. Hawaiian air tour operators may be issued a deviation (previously under Special Federal Aviation Regulation (SFAR) 71, Special Operating Rules for Air Tour Operations in the State of Hawaii) using LOA/OpSpec B048, Operations in the Vicinity of the Hawaiian Islands. The deviation authorizes operators to conduct § 91.147 commercial air tour operations below an altitude of 1,500 feet above the surface in accordance with part 136, part 136 appendix A, and the limitations and provisions of B048.

F. Air Tour Operations Under §§ 91.147 and 136.37. The requirements of § 91.147 and those of § 136.37 are separate. Some commercial air tour operators conduct overflight of national parks and fall under the exception in § 136.37. OpSpec/LOA B057, National Parks Air Tour Management Operations under Title 14 CFR Part 136, is required for national park operations; it is issued in addition to LOA A049. OpSpec/LOA B057 authorizes an operator to conduct commercial air tour operations over national park(s) and tribal lands within or abutting the national park in accordance with part 136. (See OpSpec/LOA B057 for guidance regarding air tour operations under § 136.37.)

G. The National Air Tour Safety Standards Final Rule (72 FR 6911). Final Rule 72 FR 6911, February 13, 2007, effective March 15, 2007, sets safety and oversight rules for a variety of sightseeing and commercial air tour flights with changes in 14 CFR parts 61, 91, 119, 121, 135, and 136. The effect of this rule is to identify air tour operators in a national database, standardize requirements for commercial air tour operators, and consolidate air tour safety standards within part 136. The rule change responded to National Transportation Safety Board (NTSB) recommendations, Government Accountability Office (GAO) reports, and Department of Transportation (DOT) General Reports, which recommend enhanced oversight of commercial air tour operations. (Refer to preamble and final rule: http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/air_tour_management_plan/documents/National%20Air%20Tour%20Safety%20Standards.pdf.)

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OPSPEC A050—HELICOPTER NIGHT VISION GOGGLE OPERATIONS (HNVGO). OpSpec A050 is an optional authorization applicable to certificate holders conducting helicopter operations under 14 CFR part 135 using Night Vision Goggles (NVG). Certificate holders must comply with the instrument and equipment requirements in 14 CFR part 91, § 91.205(h) to conduct Helicopter Night Vision Goggle Operations (HNVGO). Certificate holders must use systems that are certificated for NVG operations and utilize NVGs that are approved for the specific helicopter(s) operated. OpSpec D093 must be issued in conjunction with OpSpec A050.

OPSPEC A051—AIRPLANE NIGHT VISION GOGGLE (ANVG) OPERATIONS.

A. Applicability. OpSpec A051 is an optional authorization applicable to certificate holders conducting airplane operations under 14 CFR part 135 using Night Vision Goggles (NVG). Certificate holders must comply with the instrument and equipment requirements in 14 CFR part 91, § 91.205(h) to conduct Airplane Night Vision Goggle (ANVG) operations. Certificate holders must use airplane systems that are certificated for NVG operations and utilize NVGs that are approved for specific airplane(s) operated. OpSpec D094 must be issued in conjunction with OpSpec A051.

B. Requirements. Prior to issuing OpSpec A051, principal inspectors (PI) must ensure that the operator has the required equipment, training procedures, and maintenance to operate airplanes utilizing NVGs. Training is considered a specialty training and is addressed in Volume 3, Chapter 19, Section 8. The qualification segment is addressed in Volume 3, Chapter 19, Section 7, specifically in Table 3-70, Part 135 Checking Modules—Airplanes.

1) If a certificate holder is issued OpSpec A061, the PI must ensure a Class 1 or 2 Electronic Flight Bag (EFB) with a Night Vision Imaging System (NVIS)-noncompatible lighting will not be used during NVG operations. A restriction or limitation of EFB use during ANVG operations may be required in Table 1, Authorized Use of EFB and Applicable Software Revision, of OpSpec A061.

2) When evaluating an operator's training and qualification programs, as well as operating procedures, consideration should be given to the different classes of airplanes the operator is applying to operate under this authorization. OpSpec A051 provides authorization for both single and multiengine airplanes, as well as single-pilot operations. After reviewing and approving the operator's training program and operating procedures, indicate in Table 1, Additional Authorizations for ANVG Operations, of OpSpec A051 the type of operations the operator is authorized to conduct by OpSpec A051. These types may be adjusted as an operator demonstrates competency. An operator must have the appropriate equipment to be authorized a class of operations.

C. Title 14 CFR Part 91 Subpart K (91K) Program Managers and Parts 121 and 125 Certificate Holders. Part 91K program managers and parts 121 and 125 certificate holders are not authorized ANVG operations at this time.

D. ANVG Operations Limitations.

1) This authorization is issued to enhance safety during night operations in airplanes. There are no FAA regulations that are relieved by issuing OpSpec A051 or OpSpec D094, such

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as lower weather minimums during an approach. Specifically, the airport requirement in part 135, § 135.229 for boundary or runway marker lights is still required.

2) Each airplane NVIS approval has specific models of NVGs that may be used as indicated in the Supplemental Type Certificate (STC) for a particular NVIS installation. A given model of airplane may have different models of NVGs specified for the NVIS installation. Particular attention should be paid to the exact NVG part number designation because each entire NVG part number must be applicable for the STC. Use of approved NVG models only is essential for a safe and effective ANVG operations. The NVG models authorized for a particular NVIS installation will be listed in the Airplane Flight Manual Supplement (AFMS) as part of the STC. Operators and PIs should be aware that certain light-emitting diode (LED) lights may negatively impact an NVIS differently from airplane to airplane. The certificate holder must have ANVG operations-authorized procedures and may only use airplanes identified in OpSpec D094. Prior to any ANVG operations, the NVIS and NVGs must have a preflight and performance check in accordance with the AFMS and maintenance program requirements.

E. Required Checks Prior to NVG Operations.

1) Aviation safety inspectors (ASI) will review the operator's procedures to ensure that correct NVIS data (e.g., NVIS Airplane Flight Manual (AFM)/AFMS, instructions for continued airworthiness (ICA), etc.) are used to identify required checks prior to ANVG operations. List these required checks, supporting documents, and references in OpSpec A051, Table 2, Required Checks Prior to Conducting NVG Operations (See Figure 3-224, Sample A051 Table 2 – Required Checks Prior to Conducting ANVG Operations).

2) Some operators may choose to incorporate the required NVIS checks into their General Operations Manual (GOM). If the entire NVIS checks (e.g., NVIS and NVG) are incorporated in the operator's GOM, then the only document required and referenced in Table 2 may be the operator's GOM. If these NVIS checks are incorporated in other manual(s), specify these documents and the locations of the NVIS checks. Table 2 must contain all NVG models and NVIS checks required for the operator's airplanes authorized to conduct ANVG operations.

Figure 3-224. Sample A051 Table 2 – Required Checks Prior to Conducting ANVG Operations

Required Check	Document	Reference within Document
NVG preflight F4949	(NVG manufacturer's manual, AFM/AFMS, GOM)	Location within document(s) reference(s)
NVG preflight M949	(NVG manufacturer's manual, AFM/AFMS, GOM)	Location within document(s) reference(s)
NVIS preflight (e.g., NVIS lighting, filtration, airplane windscreen, etc.)	(AFM/AFMS, ICA, GOM)	Location within document(s) reference(s)

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OPSPEC A053—EMERGENCY CHARTER OPERATIONS. (TBD.)

OPSPEC A054—(PART 133 DATABASE ONLY) INSTRUMENT FLIGHT RULES OPERATIONS (FOR PART 133, EXTERNAL LOAD OPERATIONS ONLY).
(Guidance is found in Volume 2, Chapter 7, Initial Certification/Renewal of a Part 133 Operator.)

OPSPEC A055—CARRIAGE OF HAZARDOUS MATERIALS.

A. Authorization. Operations specification (OpSpec) A055 is an optional authorization applicable to certificate holders conducting operations under 14 CFR parts 121 or 135 that choose to comply with the applicable regulations to carry hazardous materials (hazmat).

B. Regulatory Changes. With the publication of Federal Register (FR) 58796, Vol. 70, No. 194, Friday, October 7, 2005, a change to part 119, § 119.49(a)(13) was effective November 7, 2005, as follows:

1) Section 119.49(a)(13) requires all certificate holders conducting operations under parts 121 or 135 to indicate in their operations specification that they “will-carry” or “will-not-carry” hazmat. OpSpec A055 is issued for those that “will-carry” hazmat. OpSpec A004 must contain the statement in subparagraph b that the certificate holder “will-not-carry” hazmat.

2) This FR also required that after February 7, 2007, these certificate holders must comply with the manual requirements of parts 121 and 135, §§ 121.135(b)(23) or 135.23(p) and with the hazmat training program requirements of §§ 121.1003 through 121.1007 or §§ 135.503 through 135.507, as applicable.

3) These changes align U.S. implementation with International Civil Aviation Organization (ICAO) standards for the carriage of hazmat, which recommend initial and biennial recurrent training programs. Additionally, ICAO recommends the certificate holder be specifically authorized by its state of authority to carry hazmat.

C. Part 91 Subpart K (Part 91K) Program Managers and Part 125 Operators. There is no OpSpec A055 for part 125 operators or management specification (MSpec) A055 for part 91K. Section 91.1085 requires hazardous material (hazmat) recognition training. No program manager may use any person to perform any assigned duty/responsibility for handling or carriage of hazmat unless that person has received training in the recognitions of hazmat.

1) Therefore, any program manager who delegates such an assignment would be a “hazmat employer” in accordance with Title 49 of the Code of Federal Regulations (49 CFR) part 172, § 172.702(d).

2) Any person so assigned, must be trained in accordance with § 172.704(a).

3) If the part 91K program manager makes a business decision not to accept hazmat and does not assign any person to perform a duty or responsibility to handle or carry hazmat, then recognition training is not required.

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D. Certificate Holders That Choose to Carry Hazmat (Will-Carry).

1) A certificate holder conducting operations under part 121 or 135 that chooses to carry hazmat (and Company Materials (COMAT) identified as hazardous) must provide to its principal operations inspector (POI) a general outline of the aspects of the proposed training program as presented in Table 1, Operators That Transport Hazardous Material – Will-Carry Certificate Holders, of part 121, appendix O and the manual with the procedures and information to be used to assist the flightcrew members. The POI will forward this material to the appropriate regional hazmat branch manager's office (see Volume 2, Chapter 2, Section 6 for references). Generally, air carriers must only submit an outline sufficient to provide an overview of the training program in regard to the aspects and functions covered in Tables 1 and 2, Operators That Do Not Transport Hazardous Materials – Will-Not-Carry Certificate Holders, of part 121 appendix O. The hazmat branch manager will review the submission to determine that it includes the relevant training aspects for the cited job functions.

2) Provided the following conditions are met, the certificate holder may be authorized to accept, handle, and transport materials, including COMAT (regulated as hazmat in transport under 49 CFR parts 171 through 180 (part 175 in particular)).

a) Packages containing hazmat are properly offered and accepted in compliance with parts 171 through 180;

b) Packages containing hazmat are properly handled, stored, packaged, loaded, and carried onboard the certificate holder's aircraft in compliance with parts 171 through 180;

c) The requirements for the notification to the PIC (part 175, § 175.33) are complied with; and

d) Aircraft replacement parts, consumable materials or other items regulated by parts 171 through 180 are properly handled, packaged, and transported.

3) Additionally, for each crewmember and person performing or directly supervising the following job functions involving items for transport on an aircraft, the certificate holder's manual required by §§ 121.133 or 135.21 shall contain those procedures and information necessary to assist the crewmember or other person in identifying packages marked or labeled as containing hazmat or show signs of containing undeclared hazmat, including procedures and information on the following:

- Acceptance.
- Rejection.
- Handling.
- Storage incidental to transport.
- Packaging of company material.
- Loading.

4) The manual required by §§ 121.133 or 135.21, as appropriate, shall contain the certificate holder's procedures for rejecting packages that do not conform to the Hazardous

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Materials Regulations (HMR) in parts 171 through 180, or that appear to contain undeclared hazmat.

5) The manual required by §§ 121.133 or 135.21, as appropriate, shall contain the certificate holder's procedures for complying with the hazmat incident reporting requirements of part 171, §§ 171.15 and 171.16 and discrepancy reporting requirements of § 175.31.

6) The certificate holder is responsible for maintaining the records in initial and recurrent hazmat training within the three preceding years of all direct employees, contractors, and subcontractors directly supervising or performing an applicable job function as described in part 121 subpart Z for or on behalf of the certificate holder. The training records may be electronic or paper and must be made available to the FAA upon request at the location the trained person performs or directly supervises the covered job function.

7) The following recordkeeping requirements are identical to those required by § 172.700, the International Air Transport Association (IATA), and the International Civil Aviation Organization (ICAO):

- Individual's name.
- Most recent training completion date.
- A description, copy, or reference to training material.
- Name and address of organization providing training.
- Copy of certification used to show test was satisfactorily completed.

E. Certificate Holders that Choose Not to Carry Hazmat (Will-Not-Carry).

1) OpSpec A004 will state that the certificate holder conducting operations under part 121 or 135 is not authorized and shall not carry hazmat, satisfying the OpSpec regulatory requirement for a "will-not-carry" certificate holder. The certificate holder is prohibited from accepting, handling, or transporting those materials, including hazardous COMAT, regulated as hazmat in transport under parts 171 through 180.

2) Consistent with this prohibition, for each crewmember and person performing or directly supervising the acceptance, handling, storage incidental to transport, or loading of items for transport on an aircraft, the certificate holder's manual required by §§ 121.133 or 135.21 (as appropriate) shall contain those procedures and information necessary to assist the crewmember or other person in identifying packages that are marked or labeled as containing hazmat or that show signs of containing undeclared hazmat.

3) The manual required by §§ 121.133 or 135.21, as appropriate, shall contain the certificate holder's procedures for rejecting packages offered for transport that contain hazmat or that appear to contain undeclared hazmat.

F. Basic, Single PIC, and Single-Pilot Operators.

1) Operators issued OpSpecs A037 through A039 must have an approved hazmat program and should use the hazmat program currently accepted/approved by their respective

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regional hazardous material branch. These certificate holders conducting operations under part 135 will need to have OpSpec A055 issued if they are a “will-carry” certificate holder. These certificate holders may have to comply with the manual requirements for the carriage of hazmat if the hazardous material branch manager requires it.

2) Single-pilot operators issued OpSpec A040 may comply with the hazmat program by submitting a program for acceptance by the FAA if they are a “will-carry” certificate holder. They will be issued OpSpec A055 if they are a “will-carry” certificate holder. There is no manual requirement for a single-pilot operator issued OpSpec A040.

G. Reference.

- 70 FR 58796 (No. 194); October 7, 2005.

OPSPEC/MSPEC/LOA A056—DATA LINK COMMUNICATIONS.

NOTE: NextGen Tracking. Applications for approvals for this paragraph must be entered in the Regional NextGen Tracker as indicated in the General Procedures Section (Volume 3, Chapter 1, Section 1).

A. General. Template A056 contains specific operational limitations and provisions for granting authorization to operators of aircraft under part 91, 121, 125, 135, or 91 subpart K to conduct data link communications using aircraft systems that are certificated for air–ground air traffic services (ATS).

1) Parts 91, 121, 125, and 135 operators, and part 91K program managers conducting flight operations in oceanic and remote airspace may use data link communications systems (i.e., Future Air Navigation System (FANS) (FANS-1/A or equivalent)). Operations using data link communications within domestic airspace require very-high frequency (VHF) radios called very-high frequency digital link Mode 2 (VDL-2), compatible with ATS.

2) Data link may be used as a supplement to voice communications with ATS. Voice communications must be continually monitored because aircraft still must be equipped with operating VHF voice and, when required, high frequency (HF) voice radios along the entire flight route.

3) All data link operations in domestic airspace are limited to the en route phase of flight where radar or an equivalent surveillance system such as Automatic Dependence Surveillance-Broadcast (ADS-B) is available for surveillance services.

4) All aircraft used to conduct data link operations in domestic airspace must be equipped with an FAA-certified collision avoidance system that is on and operating. (Reference part 91, § 91.221; part 121, § 121.356; part 125, § 125.224; part 129, § 129.18; and part 135, § 135.180.)

5) An exception to the requirement for data link communication systems is the FANS-1/A system in oceanic or remote airspace. The FANS-1/A communications system can only be approved for data link operations in oceanic and remote area airspace. FANS-1/A

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systems are not interoperable with the VDL-2 infrastructure for domestic data link communications.

B. Data Link Training. Part 121 and 135 air carriers, and part 91K program managers must have an approved data link training program for their maintenance and flightcrew personnel, as outlined in FAA AC 120-70, Operational Authorization Process for use of Data Link Communication System, current edition.

C. Authorization for Data Link Use. For part 91, 121, 125, and 135 operators and part 91K program managers, the POI will coordinate with the principal avionics and PMIs on the following matters:

1) Equipment and systems certification, and airworthiness approval review;

2) The content of the OpSpec authorization;

3) The required communication performance;

4) The AFM;

5) Additional MEL requirements and relief; and

6) Other elements necessary for the safe and effective use of data link communications.

NOTE: POIs should be aware that there may be additional limitations and guidance for specific airplanes in Flight Standardization Board (FSB) reports.

D. Contents of Operator Application for Operational Authorization to Use Data Link. The operator's application to obtain authorization to use data link must address and contain the following subjects:

1) List of source documents used:

a) For generic data link operations (e.g., aircraft/avionics manufacturer documents).

b) For area of operations specific policy/procedures. (See item 3 below.)

2) Description of aircraft data link systems including certification documents and current configuration (e.g., current avionics load).

3) Data link system make/model/series. All STC and AFM limitations and procedures.

4) General information.

5) Areas of operation/routes where operator intends to use data link.

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a) List of areas and/or routes where operator intends to conduct data link operations.

b) List of air traffic centers/service providers with which the operator intends to communicate via data link.

c) List of policy and procedures source documents applicable to each area(s) of operations, such as:

1. Operations manuals for specific areas of operations (e.g., FANS-1/A Operations Manual (FOM) for operation in Asia–Pacific flight information regions (FIR)).

2. State Aeronautical Information Publications (AIP).

3. State Notices to Airmen.

4. FAA chart supplements (e.g., Pacific and Alaska chart supplement).

6) Flightcrew qualification programs.

7) Manuals and other publications.

8) MMEL/MEL.

9) Issues unique to a particular operator.

10) Maintenance programs.

E. Contents of Flightcrew Qualification Programs.

1) Academic Training Subjects. A basic source document for data link procedures in oceanic areas is the FOM, part 5. Policy and procedures applicable to specific FIRs are in state AIPs and NOTAMs. Address the following areas:

- Acronym Source: FOM part 2,
- General concepts of digital and analog communications,
- Expected flightcrew response,
- ATS coordination,
- Aircraft digital or analog communication equipment components, displays, alerts. (Sources: aircraft manufacturer documents.),
- Interface with other aircraft systems,
- AFM information MEL provisions,
- Data link events reports,
- Data link malfunction or irregularity reports, and
- Human factors—lessons learned.

2) Operational Use Training.

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- General requirement,
- Simulators,
- Computer-based instruction,
- Policy on initial pilot evaluation, and
- Recurrent training and evaluation.

3) Currency (recent experience).

4) Line Checks and Route Checks (if applicable).

5) Line-Oriented Flight Training (if applicable).

F. Operational Authorization Documents. This issuance of paragraph A056 grants approval to use data link communications in operations. Either the certificate management office or Flight Standards District Office should coordinate the approval with AFS-400.

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Table 3-23. Communications Systems and Operating Environments

This table lists the systems and their operating environment including the applicable criteria with references.

Row	Aircraft Data Link System	Operating Environment			Applicable Standards
		Type of Airspace	ATS Unit System	Capabilities and Uses	
1	ATN B1	Domestic (Continental)	ATN B1	Supplemental ATC communications: Communication application supports data link initiation capability (DLIC) data link service. Controller Pilot Data Link Communications (CPDLC) application supports ACM, ACL, and AMC data link services. Note 1: departure clearance (DCL), downstream clearance (DSC), (Digital-Automatic Terminal Information Service (D-ATIS), and Flight Plan Consistency (FLIPCY) data link services are not supported.	a. DO-290/ED-120, Chg 1 and Chg 2, Continental Safety and Performance (SPR) Standard. b. DO-280B/ED-110B air traffic management (ATM) B1 INTEROP Standard.
2	FANS 1/A+	Domestic (Continental)	ATN B1 FANS-1/A	Same as row 1 except: Uses Aeronautical Telecommunications Network (ATN) ATC Facilities Notification (AFN) application for DLIC data link service. For CPDLC application, UM 215, TURN (direction) (degrees) is not supported. Note 2: FANS 1/A aircraft will require use of DM67 (free text) to mimic certain message elements per DO-290/ED-120 Chg 1 and Chg 2. See DO-305/ED-154 paragraph 4.2.13.2.	Same as row 1 plus: a. DO-305/ED-154, FANS 1/A-ATN INTEROP Standard (Applies only to ATS Unit except see note 2). b. DO-258A/ED-100A, FANS 1/A INTEROP Standard (Applies only to aircraft).

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Row	Aircraft Data Link System	Operating Environment			Applicable Standards
		Type of Airspace	ATS Unit System	Capabilities and Uses	
				Note 3: In accordance with DO-290/ED-120, Chg 1 and Chg 2, FANS 1/A aircraft will require use of a message latency timer per DO-258A/ED-100A, paragraph 4.6.6.9 and is denoted by a "+" appended to the "FANS 1/A" label. Note 4: Only via VHF data link subnetwork.	
3	FANS 1/A+ or FANS 1/A	Oceanic and remote	FANS-1/A	Normal means of ATC communication uses AFN and CPDLC applications for direct controller-pilot communications (DCPC). Eligible for: Required Communication Performance (RCP) 240 operations via VHF, SATCOM Iridium and SATCOM Inmarsat subnetworks. RCP 400 operations via HF data link subnetwork. No RCP operations. Note 4: Aircraft capability that supports multiple RCP type operations needs to include appropriate indications and/or alerts to enable the flightcrew to notify ATC when aircraft equipment failures result in the aircraft's ability to no longer meet its criteria for any of the RCP types, per DO-306/ED-122, paragraph 5.2.6.a) and 5.2.6.b).	a. DO-306/ED-122, Oceanic SPR Standard. b. DO-258A/ED-100A (or earlier versions) FANS 1/A INTEROP Standard.

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Row	Aircraft Data Link System	Operating Environment			Applicable Standards
		Type of Airspace	ATS Unit System	Capabilities and Uses	
				Uses ADS-C application for automatic position reporting.	
4	FANS 1/A+ or FANS 1/A	Oceanic and Remote	CADS	No CPDLC application. Uses ADS-C application for automatic position reporting.	a. DO-306/ED-122 Oceanic SPR Standard. b. DO-258A/ED-100A (or earlier version), FANS 1/A INTEROP Standard (Applies only to aircraft) c. Centralized ADS (CADS) Common Specification, Version 2.0, approved ICAO NAT FIG/10, Paris, March 29–April 2, 2004 (Applies only to ATS unit)
5	Flight management system waypoint position reporting (FMS WPR)	Oceanic and Remote	CFRS	Same as row 4	a. DO-306/ED-122, Oceanic SPR Standard b. ARINC 702A, Advanced Flight Management Computer System (Applies only to aircraft) c. Central Flight Management Computer Waypoint Reporting System (CFRS) Common Specification, Version 2.0, approved International Civil Aviation Organization (ICAO) North Atlantic (NAT) FIG/10, Paris, March 29–April 2, 2004 (Applies only to ATS unit when ATS unit is CADS)

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Row	Aircraft Data Link System	Operating Environment			Applicable Standards
		Type of Airspace	ATS Unit System	Capabilities and Uses	
6	FANS 1/A ADS-C	Oceanic and Remote	FANS-1/A or CADS	Same as row 4	a. DO-306/ED-122 Oceanic SPR Standard b. DO-258A-ED-100A (or earlier version) FANS 1/A INTEROP Standard (If ATS unit is CADS, applies only to aircraft) c. CADS Common Specification, Version 2.0, approved ICAO NAT FIG/10, Paris, March 29–April 2, 2004 (Applies only to ATS unit when ATS unit is CADS

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MSPEC A058—SINGLE PILOT PROGRAM FLIGHTS. The program manager may be authorized to use certain program aircraft with approved autopilot systems in single pilot program flights provided the limitations and provisions of MSpec A058 are met.

MSPEC A059—USE OF ALTERNATE MANUALS, PROGRAMS, OR SYSTEMS. The program manager may be authorized to use specific alternate manuals, programs, or systems (except for flight, duty, and rest provisions) in accordance with the limitations and provisions of MSpec A059.

OPSPEC A060—EUROPEAN AVIATION SAFETY AGENCY RATINGS FOR REPAIR STATIONS LOCATED OUTSIDE THE UNITED STATES. This paragraph authorizes work performed under European Aviation Safety Agency (EASA)-rated repair stations if the appropriate form (EASA Form 3) authorizes the scope of the work.

OPSPEC/MSPEC/LOA A061—USE OF ELECTRONIC FLIGHT BAG.

NOTE: NextGen Tracking. Applications for approvals for this paragraph must be entered in the Regional NextGen Tracker as indicated in the General Procedures Section (Volume 3, Chapter 1, Section 1).

A. Applicability. Paragraph A061 is an optional authorization available to all operators conducting airplane operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (the Letter of Deviation Authority (LODA) 125 operators), and 135. Paragraph A061 authorizes the use of Class 1, Class 2, and/or Class 3 Electronic Flight Bags (EFB), and describes the conditions and limitations for EFB use.

NOTE: Questions regarding the issuance of OpSpec/MSpec/LOA A061 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-385-4743, the Air Transportation Division (AFS-200) at 202-267-8166, or the General Aviation and Commercial Division (AFS-800) at 202-267-8212.

B. General. Aviation safety inspectors (ASI) and Aircraft Evaluation Groups (AEG) will no longer approve Class 1 and 2 EFB hardware and associated Type A and B application software. Instead, ASIs may authorize the use of Class 1 or 2 EFB devices, including those Class 2 EFBs containing Type C application software meeting requirements of the current edition of Technical Standard Order (TSO) C165, Electronic Map Display Equipment for Graphical Depiction of Aircraft Position, for display of “own-ship” position on airport moving map displays. Installation requirements and airworthiness approval remain unchanged.

1) Class 3 hardware and Type C software will be FAA-approved by the normal type certification processes (type certificate (TC)/Supplemental Type Certificate (STC)). For operations conducted under parts 91K, 121, 125 (including deviation holders), and 135, all EFBs will be authorized for use by OpSpec/MSpec/LOA. AEG evaluation of Class 3 and/or Type C will be published in the applicable Flight Standardization Board (FSB) report.

2) Class 1 or 2 hardware (with Type A and/or B software applications) must be demonstrated to reliably meet intended EFB functions. It is the responsibility of the applicant

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and/or the EFB hardware/software vendor to ensure that its EFB system and Type A and B software applications can accurately perform intended functions. AEG evaluation of a Class 1 or 2 EFB (with Type B applications) will be at the AEG's discretion and published in an Operational Suitability Report (OSR) for the particular EFB.

C. Background. Advisory Circular (AC) 120-76, Guidelines for the Certification, Airworthiness, and Operational Approval of Electronic Flight Bag Computing Devices, current edition, and expired Notice N 8200.98, Electronic Flight Bag Job Aid, reference several instances of FAA inspector and AEG approval requirements for Class 1 and 2 EFB hardware and associated Type A and B application software (whether that software is sold separately or embedded in an EFB device). The guidance in this section replaces procedures and advisory material in FAA orders and ACs requiring an FAA inspector or the AEG to approve Class 1 and 2 EFB hardware and associated Type A and B software applications. The guidance in this section is not intended to stop or restrict the operational use of these devices and software. This section also replaces the cancelled Notice N 8000.353, Revised Guidance for Authorizing the Use of Electronic Flight Bags, Issuance of A061, Electronic Flight Bag, and Revision to A025.

1) In AC 120-76, the words "approved" and "approval" are used in many instances when referring to actions that may be accomplished by Flight Standards Service (AFS) ASIs. The uses of these words are intended to reflect the general process for approval or acceptance. The general process of approval or acceptance of certain operations, programs, documents, procedures, methods, or systems is an orderly method used by AFS inspectors to ensure that such items meet regulatory standards and provide for safe operating practices. It is a modular, generic process that can be applied to many types of approval or acceptance tasks. It is important for inspectors to understand that this process is a tool to be used with good judgment.

2) The application of the approval process described in ASI handbooks, coupled with the plain English definitions of approved and approval, has led to some confusion in the aviation community. AFS ASIs have no authority to approve EFB hardware or EFB application software. The guidance in this section is not intended to stop or restrict the operational use of these devices and software, but to clarify the role of AFS ASIs with regard to EFBs.

D. Guidance.

1) The authorization to use an EFB is optional and applicable to operators conducting operations under parts 91K, 121, 125 (including LODA holders), and 135. ASIs may authorize the use of Class 1, 2, and 3 EFB devices. (OpSpec/MSpec/LOA A025 is no longer used for the EFB authorization.)

2) Use A061 Table 1 for authorizing the use of a Class 1 EFB with Type "B" software installed or any Class 2 or 3 EFB. OpSpec/MSpec/LOA A061 will be used to document the aircraft make, model, and series (M/M/S), the EFB hardware class, manufacturer, model, software type, source, and revision number. Compliance with the requirements of OpSpec/MSpec/LOA A061 should be validated during routine inspections of the operator before it is issued.

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3) ASIs and AEGs are not responsible for approving Class 1 and 2 EFB hardware and associated Type A and B application software.

a) Installation requirements and airworthiness approvals remain unchanged as specified in AC 120-76.

b) The appropriate AEG, at their discretion, may evaluate the EFB device installations that present new or novel functions and provide a report of operational suitability and/or adverse findings to the responsible aircraft certification or airworthiness entity having approval authority for the initial installation. OSRs are available at http://fsims.avs.faa.gov under "Publications," "MMEL & AEG Guidance Documents," "Flight Standardization Board (FSB) Reports." ASIs should ensure that an operator complies with these reports when they are available for a particular EFB.

4) Class 1 and 2 EFB devices. A061 provides standardized text for the use of Class 1 and 2 EFB devices. The following is applicable for authorizing the use of Class 1 and 2 EFB devices:

a) Class 1 and/or 2 devices with Type A and/or B application software may be authorized for use in accordance with the technical guidance specified in AC 120-76. Class 1 devices with Type A or B application software and/or Class 2 devices with Type A or B application software and/or software approved under TSO-C165 (Type C) may be used.

NOTE: Technical guidance on Class 2 EFBs with Type C application software providing "own-ship" position is found in the current edition of AC 20-159, Obtaining Design and Production Approval of Airport Moving Map Display Applications Intended for Electronic Flight Bag Systems.

b) The maintenance and avionics inspectors must ensure that the aircraft and equipment have the proper airworthiness approvals for any power, databus connections, or mounting.

c) Training for the use and/or maintenance of the EFB by the certificate holder/program manager must be documented and included in the operator's approved training program and applicable maintenance program.

d) The certificate holder/program manager will specify the procedures for updating and maintaining any databases necessary to perform the intended functions of the EFB in its manual.

e) The principal inspector (PI) is responsible for conducting a review of the system performance to ensure its acceptability prior to granting authorization to use. The PI should review the system performance using the EFB system user's manual/pilot's guide. The PI is responsible for evaluating the operators use of the EFB in normal and emergency operations, but not a review of the actual hardware or software.

f) The AEG is available to assist with questions and guidance regarding EFB operational evaluations. The PI should contact the AEG when an operator submits a request for

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authorization to use an EFB that includes a new or novel function. The AEG may evaluate Class 1 or 2 hardware or Type B software applications as necessary to address progression in available EFB equipment and functions in the aviation industry.

g) If a Class 1 or 2 EFB device is authorized for use, the ASI must enter the appropriate EFB information into the cells of the table. All other information in regard to the authorization for the use of an EFB should be documented in the operator's manual and not written into A061.

5) Aircraft Certification Service (AIR) must provide design, installation, and airworthiness approval for Class 3 EFB hardware that is permanently installed on an aircraft. This will be accomplished by incorporating the EFB into the aircraft type design or STC, not by field approvals. If a Class 3 EFB device is authorized to be used, the table in A061 should be appropriately filled out.

a) The Type C application software associated with Class 3 EFB device is also certified by AIR in reference to the current edition of RTCA/DO-178B, Software Considerations in Airborne Systems and Equipment Certification. Type A and B application software may be installed on these devices, but require no approval by the ASI as this software is protected from the Type C application software in the RTCA/DO-178 standard.

b) Operators should have procedures to control revisions to the EFB software in their manuals. Software version control is accomplished by using Table 1 in OpSpec/MSpec/LOA A061.

c) If Type A or B software is used in conjunction with Type C software in the Class 3 EFB, the name of the software must be documented in Table 1 of OpSpec/MSpec/LOA A061.

6) Simulator and/or in-flight validation tests may be needed to fully determine the suitability of the use of an EFB (see AC 120-76, paragraph 12(j), pages 21 and 22). Each operator's proposed EFB functionality and software will vary, and scenarios should be customized for the particular situation by the inspector and applicant. It is the operator's responsibility to demonstrate the function and reliability of the EFB.

a) Validation flight scenarios should be used to ensure that the EFB device's use has adequately transitioned into the operator's overall training and operations programs. In some cases, the task will be completed entirely with an EFB, while in other cases the EFB device may be used together with other sources of information, such as paper charts or documents, depending on the capabilities of the EFB device and its operational implementation.

b) The required EFB validation flight scenario differences could be affected by other factors, such as:

- Software: Type A, B, or C application;
- Hardware: Classes 1, 2, or 3, which include factors such as location in the flight deck and connectivity to other aircraft systems;

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- Aircraft/Operations: Single pilot versus dual pilot, single EFB versus dual EFB; and
- Weather conditions: Visual versus instrument; very-low visibility.

E. Inspector Action. ASIs will review this section and provide pertinent information to the affected operators. OpSpec/MSpec/LOA A025 would be a nonmandatory revision to remove any EFB authorization.

1) ASIs will provide technical advice and guidance to operators, when requested, to assist them in evaluating their selected EFB devices using the technical guidance found in AC 120-76 but will no longer issue FAA approvals for the hardware and software. Authorization for use will be issued in reference to subparagraph E3) below.

2) If the operator has OpSpec A025 issued for electronic recordkeeping systems without the use of an EFB, it is not necessary to reissue that operator's OpSpec A025. Electronic recordkeeping system functions may co-reside on an EFB device and, if so, OpSpec A025 as well as OpSpec A061 should be issued as instructed below.

3) ASIs will use the new OpSpec/MSpec/LOA A061 EFB to authorize the use of a Class 1, 2, or 3 EFB device. Compliance with the requirements of OpSpec/MSpec/LOA A061 should be validated prior to the initial authorization to use an EFB and during routine inspections of the operator. If an EFB is authorized to be used, the table in A061 should be appropriately filled out. All other information in regard to the authorization should be documented in the operator's manual and not written into A061.

OPSPEC/MSPEC A096—ACTUAL PASSENGER AND BAGGAGE WEIGHT PROGRAM FOR ALL AIRCRAFT. Passenger and cargo only operations conducted under 14 CFR parts 91K, 121, 125, and 135 that use actual weights, or asked/volunteered weights plus 10 pounds to account for the weight and balance of all company owned and operated aircraft, must be issued OpSpec A096. If OpSpec A096 is issued, OpSpecs A097, A098, and/or A099 may not be issued.

NOTE: Operators authorized to use average weight always retain the option to use actual weights.

OPSPEC/MSPEC A097—SMALL CABIN AIRCRAFT PASSENGER AND BAGGAGE WEIGHT PROGRAM. Operators of small-cabin aircraft (aircraft type certificated for 5 to 29 passenger seats) that wish to use any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights must be issued OpSpec A097. (The classification of small-, medium-, and large-cabin aircraft is based on the maximum type certificated number of passenger seats authorized for an aircraft, not the seating configuration as operated) If an operator elects to use only actual passenger and baggage weights, only OpSpec A096 must be issued. Table 1 of OpSpec A097 approves and tracks the general weight and balance control program weights that may consist of any combination of average, survey derived average, segmented, and/or actual weights. Operators approved for survey derived average weights must specify the expiration date of such weights. The expiration date for survey derived average weights may not exceed 36 calendar-months, beginning the month the survey

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was completed to derive such average weights. Use Table 2 of OpSpec A097 to approve route specific program weights. The route specific program weights may be comprised of any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights. Review AC 120-27, Aircraft Weight and Balance Control, current edition, before issuing OpSpec A097 to verify operator weight and balance control program compliance.

OPSPEC/MSPEC A098—MEDIUM CABIN AIRCRAFT PASSENGER AND BAGGAGE WEIGHT PROGRAM. Operators of medium-cabin aircraft (aircraft type certificated for 30 to 70 passenger seats) that wish to use any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights must be issued OpSpec A098. (The classification of small- , medium- , and large-cabin aircraft is based on the maximum type certificated number of passenger seats authorized for an aircraft, not the seating configuration as operated.) If an operator elects to use only actual passenger and baggage weights, OpSpec A096 must be issued. Table 1 of OpSpec A098 approves and tracks the general weight and balance program weights that may consist of any combination of average, survey derived average, segmented, and/or actual weights. Operators approved for survey derived average weights must specify the expiration date of such weights. The expiration date for survey derived average weights may not exceed 36 calendar-months, beginning the month the survey was completed to derive such average weights. Use Table 2 of OpSpec A098 to approve route specific program weights. The route specific program weights may be comprised of any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights. Review AC 120-27, Aircraft Weight and Balance Control, current edition, before issuing OpSpec A098 to verify operator weight and balance control program compliance.

OPSPEC/MSPEC A099—LARGE CABIN AIRCRAFT PASSENGER AND BAGGAGE WEIGHT PROGRAM. Operators of large-cabin aircraft (aircraft type-certificated for 71 or more passenger seats) that wish to use any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights must be issued OpSpec A099. (The classification of small-, medium-, and large-cabin aircraft is based on the maximum type-certificated number of passenger seats authorized for an aircraft, not the seating configuration as operated.) If an operator elects to use only actual passenger and baggage weights, OpSpec A096 needs to be issued. Table 1 of OpSpec A099 approves and tracks the general weight and balance program weights that may consist of any combination of average, survey derived average, segmented, and/or actual weights. Operators approved for survey derived average weights must specify the expiration date of such weights. The expiration date for survey derived average weights may not exceed 36 calendar-months, beginning the month the survey was completed to derive such average weights. Use Table 2 of OpSpec A099 to approve route specific program weights. The route specific program weights may be comprised of any combination of standard average, survey derived average, segmented, and/or actual passenger and baggage weights. Review AC 120-27, Aircraft Weight and Balance Control, current edition, before issuing template A099 to verify operator weight and balance control program compliance.

OPSPEC A101—ADDITIONAL FIXED LOCATIONS. This paragraph identifies additional locations (facilities) within the FSDO that collectively form a certificated part 145 repair station’s operational base without having to certificate each facility as a stand-alone or satellite repair station.

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A. Additional Locations. All additional locations of the certificated repair station must be under the full control of the primary facility listed in OpSpec A001. Individual facilities are not required to be completely equipped with tools, equipment, and parts, but must have them available when they perform the work.

B. Repair Station Manual (RSM). The RSM must contain detailed procedures for the transport of equipment and parts between facilities. The RSM should also outline procedures to ensure adequate personnel are available to support the additional fixed locations/facilities while articles are undergoing maintenance. Further, using additional fixed locations does not constitute work away from the repair station.

C. Bilateral Agreement (BA) Including Provisions for Maintenance. When a repair station is located in a country with which the United States has signed a BA that includes provisions for maintenance of aircraft, engines, and appliances for installation on U.S.-registered aircraft, the repair station may operate in multiple facilities under one FAA air agency certificate within that country. The authorization requires the cooperation of the local national aviation authority.

NOTE: The repair station's additional locations may only be within the geographic boundaries of the BA country.

OPSPEC A117—USE OF ONBOARD FLIGHTCREW MEMBER REST FACILITIES.

A. Background. This paragraph provides guidance for preparing OpSpec A117, Use of Onboard Flightcrew Member Rest Facilities. Under the limits of 14 CFR part 117, the airplane used must be equipped with onboard flightcrew member rest facilities any time a flightcrew member is conducting augmented operations. The class of rest facility used is an essential element in determining the maximum length of the flightcrew member's flight duty period (FDP).

B. Part 117 Rest Facility Classifications. Part 117, § 117.3 prescribes three classes of onboard flightcrew member rest facilities and includes design criteria and specifications for each classification. The FAA evaluates onboard flightcrew member rest facilities and determines their qualification in accordance with part 117 requirements. Information regarding evaluation and qualification of onboard rest facilities is contained in Volume 3, Chapter 58, Section 3, and the current edition of Advisory Circular (AC) 117-1, Flightcrew Member Rest Facilities.
Section 117.3 defines the three classes of onboard flightcrew member rest facilities as follows:

1) Class 1 Rest Facility. A Class 1 rest facility is a bunk or other surface that allows for a flat sleeping position and is located separately from both the flight deck and passenger cabin, in an area that is temperature controlled, allows the flightcrew member to control light, and provides isolation from noise and disturbance.

2) Class 2 Rest Facility. A Class 2 rest facility is a seat in an aircraft cabin that allows for a flat or near-flat sleeping position, is separated from passengers by a minimum of a curtain to provide darkness and some sound mitigation, and is reasonably free from disturbance by passengers or flightcrew members.

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3) Class 3 Rest Facility. A Class 3 rest facility is a seat in an aircraft cabin or flight deck that reclines at least 40 degrees and provides leg and foot support.

C. OpSpec A117 Must be Issued Prior to any Augmented Flightcrew Operations. A certificate holder must be issued A117 prior to conducting any augmented flightcrew member operations in accordance with the FDP limits prescribed in Table C of part 117 (Flight Duty Period: Augmented Operations). When issued, A117 serves as the source document identifying each of the certificate holder's airplanes having qualified onboard flightcrew member rest facilities. OpSpec A117 lists each onboard facility by aircraft, class, number of sleep surfaces, and the date of qualification.

D. Rest Facility Technical Report. In accordance with the requirements of Volume 3, Chapter 58, Section 3, qualification of a Class 1 rest facility is accomplished by the Aircraft Evaluation Group (AEG). A principal operations inspector (POI) will qualify a Class 2 or 3 rest facility. Regardless of who is conducting the qualification, certificate holders seeking rest facility qualification must provide the POI with a copy of a rest facility technical report containing the pertinent data for the rest facilities being qualified. The certificate holder's technical report should contain a list of each of their airplanes having rest facilities (by make, model, and series (M/M/S), registration, and serial number) that correspond to the installation approval source for that class of rest facility. This data will be instrumental in assisting the POI with preparing and/or updating the certificate holder's OpSpec A117. The rest facility technical report data must include:

1) The installation approval for each rest facility to be qualified, such as the type certificate (TC) approval, the Supplemental Type Certificate (STC) Designated Engineering Representative (DER) approval, or another acceptable means of approval; and

2) A list of airplanes by registration and serial number, M/M/S, classification of rest facility to be qualified, installation approval for the rest facility, and the number of sleep surfaces installed under that classification.

E. Preparing and Issuing the Certificate Holder's OpSpec A117. Using the airplane and rest facility data contained in the technical report, the POI will insert the required data into Table 1 of the certificate holder's OpSpec A117, identifying each of the certificate holder's airplanes by M/M/S, registration and serial number, class of rest facility, qualification date, and the number of sleep surfaces. When populating Table 1 of OpSpec A117, enter the following data into the appropriate section of the Table:

- The registration number of the airplane;
- The serial number of the airplane;
- The M/M/S number of the airplane;
- The classification of rest facility;
- The number of sleep surfaces installed in this airplane under the qualified rest facility classification; and
- The date the rest facility was qualified.

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F. Downgraded Rest Facility Classification. With the exception of a rest facility that is properly deferred in accordance with the certificate holder's FAA-approved minimum equipment list (MEL), any time it is determined that a certificate holder's rest facility no longer meets its qualified classification, the rest facility must be downgraded to a lower classification. In this case, the airplane must be removed from the certificate holder's OpSpec A117 until such time as the airplane's rest facility is requalified to a lower classification. A certificate holder may not use an airplane that does not have a properly qualified rest facility in any operation requiring an augmented flightcrew. Once the airplane has been requalified to a lower classification, the airplane and its new qualification data must be appropriately inserted into the certificate holder's OpSpec A117.

G. Modified or Altered Rest Facility. In the event the FAA determines that a modification or alteration to a rest facility does not meet the classification previously qualified, that rest facility may be evaluated to a different (lower) classification, if applicable. If the FAA determines that the rest facility does not meet any of the three classifications, that airplane may not be used for augmented flightcrew operations. If it is determined that the rest facility does not meet any of the three classifications, or if a rest facility loses its qualification, the POI must remove the airplane from the certificate holder's OpSpec A117.

H. Upgrading a Rest Facility. A certificate holder may upgrade its rest facility to meet the specifications for a higher rest facility classification. This will require the rest facility to be requalified prior to using the FDP limits applicable for the higher rest facility classification. Upon satisfactory requalification to a higher classification, the certificate holder's OpSpec A117 must be updated to reflect the newly qualified rest facility the augmented FDP limits for the higher classification.

I. Requalification of Previously Qualified Rest Facilities. Requalification of a previously qualified rest facility is required when it is determined that it no longer meets the design criteria and specifications for that class of rest facility. The rest facility may be evaluated and qualified to a different (lower) classification such as a Class 1 to a Class 2. If the rest facility is qualified to a different class, the POI must reflect the new classification in the certificate holder's OpSpec A117. If it is determined that the rest facility does not meet any of the three classifications, the POI must remove the airplane from the certificate holder's OpSpec A117. A certificate holder may not use an airplane that not listed in its OpSpec A117 to conduct part 117 operations requiring an augmented flightcrew.

OPSPEC/MSPEC/LOA A153—AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B) OUT OPERATIONS OUTSIDE OF U.S.-DESIGNATED AIRSPACE: 14 CFR PARTS 91, 91K, 121, 125, 125M, AND 135 CERTIFICATE HOLDERS/OPERATORS/PROGRAM MANAGERS. Automatic Dependent Surveillance-Broadcast (ADS-B) is a system for air traffic surveillance within those areas where the ground infrastructure (ADS-B ground station and air traffic communications network) is in place and available. ADS-B Out is the capability to send a formatted message that includes elements such as position, altitude, velocity, direction, etc., for use by air traffic in providing air traffic separation services.

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A. General Guidance for A153.

1) ADS-B Description.

a) The ADS-B system consists of three elements:

1. Avionics. Installed aircraft avionics gather, format, and transmit the message elements from the aircraft via a discrete frequency. ADS-B messages include at least the following elements:

- Aircraft horizontal position (latitude/longitude).
- Aircraft barometric altitude.
- Aircraft identification: the assigned, unique International Civil Aviation Organization (ICAO) 24-bit address.
- Flight ID.
- Special Position Indicator (SPI).
- Emergency status.

NOTE: Flight ID, SPI, and the emergency status are the only message elements that can be modified by the flightcrew.

2. Navigation Source. Position data is typically derived from Global Navigation Satellite System (GNSS)/Global Positioning System (GPS) to determine an aircraft's position.

3. Ground Stations. The ground infrastructure must be in place to receive and process the message elements from aircraft and to provide the air traffic automation system with the necessary information for air traffic control (ATC) surveillance and separation services.

NOTE: Refer to the current edition of Advisory Circular (AC) 90-114, Automatic Dependent Surveillance-Broadcast (ADS-B) Operations, for a more in-depth description of ADS-B, and see Volume 4, Chapter 1, Section 1.

B. Applicability. The following information identifies FAA approval requirements for U.S. aircraft operators in foreign airspace where a foreign authority requires an ADS-B Out operational approval. Additionally, a regional authorization (via OpSpec B050) is also required for operations in areas outside of U.S.-designated airspace (e.g., ADS-B use within the Hong Kong flight information region (FIR) will also require B050 for China). A153 is not applicable to operations in U.S. airspace defined in 14 CFR part 91, § 91.225(d). Authorization is not required to use Flight Information Service-Broadcast (FIS-B) or Traffic Information Service-Broadcast (TIS-B) services for situational awareness onboard the aircraft.

NOTE: The ADS-B A153 Application Checklist provides the most up to date information on which countries require A153. The ADS-B A153 Application Checklist can be found under "Quick Links" at http://www.faa.gov/nextgen/programs/adsb/. As additional regions are implementing ADS-B, U.S. operators are advised to monitor the regions

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(applicable Aeronautical Information Publication (AIP) and/or AICs) applicable to their operation for any changes related to ADS-B requirements and to comply with part 91, § 91.703, Operations of civil aircraft of U.S. registry outside of the United States.

C. Authorization. OpSpec/MSpec/LOA A153 is an optional authorization applicable to all certificate holders/operators conducting ADS-B Out operations under 14 CFR parts 91, 91K, 121, 125 (including the Letters of Deviation Authority (LODA)), 125M, and 135.

D. Application Process.

1) The operator submits an application identifying each aircraft make, model, and series (M/M/S) during initial and subsequent requests for A153 authorization. Subsequent requests to add additional aircraft of the same M/M/S to an existing authorization should include documentation contained in subparagraphs E2), E3), and E6) below.

2) The FAA Flight Standards District Office (FSDO)/certificate-holding district office (CHDO) receiving a certificate holder/operator request to conduct ADS-B operations should provide the applicant with a current copy of the ADS-B A153 Application Checklist, ADS-B Operations Outside of U.S. Designated Airspace, from the Web-based Operations Safety System (WebOPSS) A153 guidance tab section.

NOTE: To access the A153 Application Checklist, move paragraph A153 to the workspace in WebOPSS. Once paragraph A153 is in the workspace, highlight A153 and click on the "Guidance" button at the bottom of the screen.

NOTE: A153 checklists are kept in the Guidance tab of WebOPSS. The A153 checklist can also be found under Quick Links at http://www.faa.gov/nextgen/programs/adsb/. Check for periodic updates.

NOTE: Inspectors shall verify completion of the A153 Application Checklist.

3) The applicable FSDO/CHDO will conduct a review of the applicant's submitted proposal using the A153 Application Checklist. When compliance with the applicable requirements has been determined, the principal inspector (PI) will issue A153.

E. ADS-B Application.

1) Checklist. The operator should complete the required A153 Application Checklist, ADS-B Operations Outside of U.S. Designated Airspace (available in WebOPSS guidance) provided by the applicable FSDO/CHDO. The following requirements correspond to the checklist items and should be documented, referenced, and attached to the application in order:

2) Letter of Request. The PI must review the operator's letter of request for issuance of authorization. Verify the letter of request includes the following information:

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a) Type of aircraft (M/M/S);

b) Airplane registration number(s) and serial number(s);

c) Areas of intended operation.

3) Copy of Manual. The PI should verify that the Aircraft Flight Manual (AFM)/Aircraft Flight Manual Supplement (AFMS)/Airplane Operations Manual (AOM) or pilot's operating handbook (POH) (as appropriate), which states that the aircraft's ADS-B Out system complies with any of the following:

- Section 91.227.
- The current edition of AC 20-165, Airworthiness Approval of Automatic Dependent Surveillance-Broadcast (ADS-B) Out Systems.
- EASA AMC 20-24, Certification Considerations for the Enhanced ATS in Non-Radar Areas using ADS-B Surveillance (ADS-B-NRA) Application via 1090 MHZ Extended Squitter (until rescinded).
- Regulation (EU) no. 1207/2011.

NOTE: The following is an example of an AFM statement for an ADS-B system which complies with § 91.227: "The installed ADS-B Out system has been shown to meet the equipment requirements of 14 CFR § 91.227."

NOTE: ADS-B Out systems approved per previous versions of AC 20-165 must have any variances, with subsequent revisions of that guidance, resolved through the FAA/manufacturer issue paper process. Such systems do not require revision of existing AFM/AFMS/AOM/POH/FOM or equivalent AC 20-165 compliance statements.

4) B050. The PI should review a copy of the operator's draft OpSpec B050 annotating the authorized en route areas where A153 will be used. (N/A for part 91 operators. For part 91 operators, the PI will enter the area(s) of intended operations in the "Conditions and Limitations" drop down box located in "Table 1" of the LOA template.)

5) Part 91 Operators. The PI must verify the operator provided a statement that the operator's pilot(s) has knowledge of current air traffic ADS-B directives for the intended areas of en route operation and will comply with § 91.703.

NOTE: Part 91 statement example: Company XX pilots have knowledge of current air traffic ABS-B directives for the intended areas of en route operation and will comply with § 91.703.

6) Maintenance Record. The PI should review the operator's aircraft maintenance record (e.g., aircraft's maintenance record, logbook, or Computerized Maintenance Program (CMP)) that verifies ADS-B installation on applicable aircraft was accomplished per Supplemental Type Certificate (STC) or other FAA-approved means. (N/A for new aircraft certified with ADS-B Out.)

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F. Administrative Changes to Part 91 LOAs.

1) The following changes are considered to be administrative in nature only:

a) Change in the primary business address of an ADS-B Out-Compliant Aircraft and/or A153 authorization holder.

b) Change in an existing operator's designated A153 Responsible Person or A153 Point of Contact (POC).

c) Change in the registration markings of an ADS-B Out-Compliant Aircraft being operated by an existing A153 authorization holder.

d) Removal of an ADS-B Out-Compliant Aircraft from an existing A153 authorization that has multiple ADS-B Out-Compliant Aircraft listed.

2) The operator requesting an administrative change should then submit a written request to the PI, that:

a) States which of the applicable administrative changes are occurring;

b) Further affirmatively states that none of the previously accepted A153 authorization elements that formed the basis for the initial issuance of the affected ADS-B Out authorization have changed or are changing; and

c) Requests the issuance of an amendment to the existing A153 authorization that acknowledges the administrative change being made.

NOTE: The operator should also provide such further information as the PI may request in order to efficiently process the request.

3) The PI should issue an amended A153 as follows:

a) Reissue the amended A153 authorization that is identical to the initial A153 authorization in all respects other than reflecting the new amended information without further inspections required.

b) If the nature of the requested amendment is to change the primary business address from one FSDO service area to another, see the additional applicable guidance in Volume 3, Chapter 2, Section 2, Responsibility for Part 91 Letters of Authorization (LOA).

G. ADS-B Information, Checklists, and Contact Information. For additional ADS-B information, please contact the following:

1) For general information on operation requirements and procedures, contact AFS-400 at 202-267-8790.

2) For parts 121 and 135 special authorizations, contact AFS-200 at 202-267-8166.

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3) For parts 91, 91K, 125, and 125M special authorizations, contact AFS-800 at 202-385-9600.

4) For continued airworthiness of ADS-B systems, contact the Aircraft Maintenance Division (AFS-300) at 202-267-1675.

5) For certification of ADS-B systems, contact Aircraft Certification Service (AIR-130) at 202-267-4613.

OPSPEC/TSPEC A304—FINAL APPROVAL OF AN AIRLINE TRANSPORT PILOT CERTIFICATION TRAINING PROGRAM.

A. General. A304 is issued only with concurrence from the Air Transportation Division (AFS-200) or the General Aviation and Commercial Division (AFS-800), as applicable, to 14 CFR parts 121, 135, 141, and 142 certificate holders. The authorization indicates final approval to conduct the Airline Transport Pilot (ATP) Certification Training Program (CTP).

B. Purpose. Completion of the ATP CTP is required by 14 CFR part 61, § 61.156 after July 31, 2014, for those applicants seeking an ATP Certificate with airplane category and multiengine rating prior to taking the knowledge test.

C. Process to Obtain Authorization. The current edition of Advisory Circular (AC) 61-138, Airline Transport Pilot Certification Training Program, provides guidance on the minimum curriculum requirements and the process by which the FAA will approve an ATP CTP as required by § 61.156. Volume 3, Chapter 62, Sections 1 and 2, provide detailed instructions on reviewing and approving an ATP CTP.

D. Issuing OpSpec/TSpec A304. OpSpec/TSpec A304 may only be issued after receiving approval from AFS-200 for part 121 or 135 air carriers and part 142 training centers and from AFS-800 for part 141 pilot schools. Based on the information provided in the program, complete the information required by the tables in A304.

OPSPEC A317—ACCEPTANCE OF A FATIGUE RISK MANAGEMENT PLAN (FRMP).

A. General. On August 1, 2010, the President signed Public Law (PL) 111-216, referred to as the Airline Safety and Federal Aviation Administration (FAA) Extension Act of 2010, which focuses on improving aviation safety. Section 212(b) of the Act requires each air carrier conducting operations under Title 14 of the Code of Federal Regulations (14 CFR) part 121 to develop, implement, and maintain a Fatigue Risk Management Plan (FRMP). The FRMP is an active plan specific to the air carrier's type of operations that describes, through its policies and procedures, methods for managing and mitigating fatigue to improve flightcrew alertness and reduce performance errors. An FRMP is a management plan for addressing the potential effects of day-to-day flightcrew member fatigue associated with the air carrier's specific type of operations. The air carrier's FRMP should reflect its appropriate fatigue mitigation strategies applicable to its operations. For specific information on a FRMP, see Volume 3, Chapter 58, Section 1.

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B. Review and Acceptance Process. The Air Transportation Division, AFS-200, is responsible for reviewing and either accepting or rejecting the air carrier's FRMP. For specific procedures on the FRMP review and acceptance process, refer to Volume 3, Chapter 58, Section 1.

C. OpSpec Issuance. The issuance of OpSpec A317 requires headquarters (HQ) approval.

1) The FAA will issue OpSpec A317 to each part 121 air carrier signifying its FRMP has been reviewed and has been determined to be acceptable. The maximum duration of the OpSpec is 24 calendar-months from the date of issuance and will be reflected on the air carrier's OpSpec A317. Therefore, at a minimum, each part 121 air carrier must submit an amended draft FRMP for review every 24 calendar-months.

2) The POI will be responsible for issuing OpSpec A317 upon receiving approval from AFS-200, and will incorporate the applicable text into the OpSpec as specified in the approval memo issued by AFS-200. For specific guidance on issuing OpSpec A317, refer to Volume 3, Chapter 58, Section 1.

OPSPEC A318—APPROVAL OF A FATIGUE RISK MANAGEMENT SYSTEM (FRMS).

A. General. Title 14 CFR part 117, § 117.7 states that "no certificate holder may exceed any provision of this part unless approved by the FAA under a Fatigue Risk Management System that provides at least an equivalent level of safety against fatigue-related accidents or incidents as the other provisions of this part."

B. Background. The objective of a Fatigue Risk Management System (FRMS) is to manage, monitor, and mitigate the effects of fatigue to improve flightcrew member alertness and reduce performance errors. A certificate holder uses an FRMS as a management system to mitigate the effects of fatigue in its particular operation. It is a data-driven system, based largely upon scientific principles and operational knowledge, which allows for continuous monitoring and management of safety risks associated with fatigue-related error. An FRMS is also:

- A fatigue mitigation tool that minimizes the acute and chronic sources of fatigue and manages the potential risks associated with fatigue.
- Part of a repetitive performance improvement process that leads to continuous safety enhancements by identifying and addressing fatigue factors across time and changing physiological and operational circumstances.

C. Review and Approval Process. The Air Transportation Division (AFS-200) is responsible for reviewing and approving a certificate holder's FRMS and subsequent revisions to their FAA-approved FRMS. For specific procedures on the FRMS review and approval process refer to the current edition of Advisory Circular (AC) 120-103, Fatigue Risk Management Systems for Aviation Safety.

D. OpSpec Issuance. The issuance of and revisions to OpSpec A318 require headquarters (HQ) approval.

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1) OpSpec A318 is issued to each 14 CFR part 121 certificate holder with an FAA-approved FRMS for part 117 operations. OpSpec A318 will identify each FAA-approved FRMS by the FRMS authorization number, FRMS title, the applicable Code of Federal Regulations (CFR) sections, the revision number, and the approval date.

2) The principal operations inspector (POI) will be responsible for issuing OpSpec A318 upon receiving an approval memo from AFS-200 to issue the OpSpec and will incorporate the applicable text into the OpSpec as specified in AFS-200's approval memo.

3) If the Administrator determines that revisions are necessary to a certificate holder's FRMS, the certificate holder must make the requested changes upon notification. The FAA will use the process outlined in 14 CFR part 119, § 119.51 to amend OpSpecs when the Administrator determines changes are necessary to a certificate holder's FRMS. Failure to make requested changes will invalidate the certificate holder's FRMS authorization.

OPSPEC A319—FATIGUE EDUCATION AND AWARENESS TRAINING (FEAT) PROGRAM INITIAL APPROVAL AND UPDATES.

A. General. Title 14 CFR part 117, § 117.9 prescribes that each 14 CFR part 121 certificate holder conducting operations under part 117 must develop and implement an FAA-approved Fatigue Education and Awareness Training (FEAT) program. The FEAT program must provide education and awareness training every 12 calendar-months to all employees of the certificate holder responsible for administering the provisions of part 117, including:

- Flightcrew members,
- Dispatchers,
- Individuals directly involved in the scheduling of flightcrew members,
- Individuals directly involved in operational control, and
- Any employee providing direct management oversight of those areas.

B. Updates to the FEAT. Each certificate holder must update its FEAT program at least once every 24 calendar-months and submit the update to the FAA for review and acceptance no later than 12 months after the date of the previous FEAT submission. Updates are categorized as either minor or major.

1) Minor Update. A minor update consists of spelling and grammatical errors, changes to contact information, typos, and reformatting of the content. Minor updates are accepted rather than approved. The minor update is to be submitted to the principal operations inspector (POI) for review and acceptance. Once accepted, the POI will send AFS-200 an email stating that a minor update to the certificate holder's FEAT has been accepted. Upon receipt of the email, AFS-200 will issue the POI an approval memo to reissue the certificate holder OpSpec A319. The approval memo will contain a new 24 calendar-month date identifying the date of the next required update. Upon receipt of the approval memo, the POI will populate the text box located in paragraph d(1) of the certificate holder's updated OpSpec A319 with this new date, as specified in the approval memo.

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2) Major Update. An update that does not meet the criteria of a minor update is considered major and requires FAA approval. The FAA emphasizes that any major update to a certificate holder's FEAT program would be considered a new program and requires FAA approval before it may be implemented. New training programs and major updates are to be submitted to the Air Transportation Division (AFS-200) at 9-AFS-200-FRMP-FRMS@faa.gov.

C. Failure to Submit Required Updates. The FAA may use its OpSpec authority under 14 CFR part 119, § 119.51 to require updates to the certificate holder's FEAT program. If the FAA determines that updates to the certificate holder's FEAT are necessary, the FAA may use the process outlined in § 119.51 to amend the certificate holder's OpSpec A319.

D. Review and Approval Process. AFS-200 is responsible for reviewing and approving a certificate holder's new FEAT program and major updates to an FAA-approved FEAT program. The certificate holder's POI is responsible for reviewing and accepting all minor updates to the certificate holder's FEAT.

E. OpSpec Issuance. The FAA will issue OpSpec A319 to each part 121 certificate holder having an FAA-approved FEAT program. The issuance of and revisions to OpSpec A319 requires headquarters (HQ) approval. The POI will be responsible for issuing OpSpec A319 upon receipt of the approval memo issued by AFS-200. This memo authorizes the POI to issue OpSpec A319 in accordance with the conditions and limitations outlined in the approval memo. The approval memo will contain specific guidance for inserting data into the appropriate fields under the following conditions:

1) FEAT Approval. The approval memo will contain the revision number and date of approval, which will be inserted into Table 1 of OpSpec A319. Additionally, the approval memo will contain the date of the next required update, which will be inserted in the data field.

2) FEAT Acceptance. The approval memo will contain the date of the next required update, which will be inserted in the data field provided in paragraph d(1) of OpSpec A319.

OPSPEC/MSPEC/LOA A321—SPECIAL FEDERAL AVIATION REGULATION (SFAR) NO. 77 AUTHORIZATION, ERBIL INTERNATIONAL AIRPORT (ORER) AND SULAYMANIYAH INTERNATIONAL AIRPORT (ORSU).

A. General. This operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) is a nonstandard template that requires approval from the Air Transportation Division (AFS-200). The Federal Aviation Administration (FAA) issues A321 to operators (including certificate holders, program managers, and A125 Letter of Deviation Authority (LODA) holders) who conduct operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, part 91 subpart K (part 91K), 121, 125, 121/135, and 135 to certain airports in Iraq. Specifically, the FAA issues A321 to grant authority in accordance with § 91.1605 Special Federal Aviation Regulations (SFAR) No. 77, paragraph (b)(5), to conduct flights originating from, or destined to, locations outside of Iraq, to or from Erbil International Airport (ORER) and Sulaymaniyah International Airport (ORSU).

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B. Approval. Principal operations inspectors (POI) and aviation safety inspectors (ASI) (as applicable) must obtain approval from AFS-200 prior to issuance or revision of OpSpec/MSpec/LOA A321.

C. Submittal Process. POIs/ASIs will follow the guidance related to nonstandard authorizations contained in Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713. Prior to submittal, inspectors should ensure the requesting operator's authorizations are current and applicable for the area requested. POIs/ASIs should consult with a Special Area of Operations (SAO) specialist (formally known as Navigation Specialist) for assistance in this regard. All requests for approval to issue OpSpec/MSpec/LOA A321 must be submitted by the office manager, through the regional Flight Standards division (RFSD) manager, to the manager of AFS-200. All requests to the manager of AFS-200 must include the concurrence and recommendation of the office manager and the manager of the RFSD. The RFSD must submit all requests for approval to the AFS-200 electronic correspondence mailbox at: 9-AFS-200-Correspondence@faa.gov, subject line: "Request Authorization for SFAR 77 Amended Areas." AFS-200 will coordinate with AFS-800 for parts 91, 91K, and 125 operators. At a minimum, operators will provide to the POIs/ASIs the following information when requesting approval to issue OpSpec/MSpec/LOA A321:

1) A description of the method by which the operator intends to obtain for and communicate to their flightcrew members, in a timely manner, current reports and information on airport conditions, navigation aids, weather, and any other factors that may affect the safety of flight including commercially available current security/threat information. This includes both preflight planning and en route operations. Include copies of the applicable pages of the General Operating Manual (GOM) addressing any or all of the above.

NOTE: This does not constitute POI/ASI approval of the method.

2) Copy of the operator's route of flight to ensure it complies with the OpSpec/MSpec/LOA A321, including proposed alternate airports.

3) The operator's specific flight information for intended flight in accordance with OpSpec/MSpec/LOA B450 (i.e., type of operations, intended frequency, airports, responsible persons, etc.).

D. Validation. Prior to RFSD manager concurrence, the POI/ASI Program Manager for 14 CFR parts 91K, 121, 135, 121/135, and 125M (as applicable) must conduct a table-top validation, with the assistance of the appropriate RFSD operations expert and AFS-200, of the operator's proposed operations into ORER and ORSU. The validation shall include, but not limited to:

1) A review of the signed or proposed contract between the operator and the security and threat information company(s). Verify the security and threat information company that has representatives in either ORER and/or ORSU as applicable.

2) A simulated flight to ORER and ORSU validating procedures incorporating security and threat information provided by the contracted company in accordance with OpSpec A321. The simulation shall include international operations (familiarity with Iraq

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Aeronautical Information Publication (AIP)), flight following/flight locating, operational control, flight preparation, preflight, en route, and post flight (i.e., flightcrew feedback process).

3) A PTRS entry, using activity codes 1318 and A321 in the "National Use Field," shall be made upon successful validation.

E. B050. Upon AFS-200 approval of A321, the POI or ASI (as applicable) must also update OpSpec/MSpec/LOA B050 to include "Middle East—Iraq SFAR 77" and designate the type of operation to Iraq as "Include," then list A321 as a reference document in the authorized areas section of Web-based Operations Safety System (WebOPSS).

F. B450. Upon AFS-200 approval of A321, the POI or ASI must also ensure that the operator updates OpSpec/MSpec/LOA B450, Table 1 to include Iraq.

OPSPEC/MSPEC A353. REPLACED BY OPSPEC A153.

OPSPEC/MSPEC/LOA A354—AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B) IN-TRAIL PROCEDURE (ITP) (14 CFR PARTS 91, 91K, 121, 125, A125, AND 135 CERTIFICATE HOLDERS/OPERATORS).

NOTE: NextGen Tracking. Applications for approvals for this paragraph must be entered in the Regional NextGen Tracker as indicated in the General Procedures Section (Volume 3, Chapter 1, Section 1).

A. General. The In-Trail Procedure (ITP) is designed primarily for use in nonradar oceanic airspace to enable appropriately equipped Automatic Dependent Surveillance-Broadcast (ADS-B) In aircraft to perform flight level (FL) changes previously unavailable with procedural separation minima applied. The improved traffic information available to ADS-B In equipped aircraft allow ITP maneuvers to occur safely with application of reduced separation minima. ITP will enable FL changes to improve ride comfort, avoid weather, and obtain more favorable winds to improve fuel economy and arrival times.

NOTE: Refer to the current edition of AC 90-114, Automatic Dependent Surveillance-Broadcast (ADS-B) Operations, Appendix 2, Definitions for a more detailed description of the ITP.

B. Applicability. Paragraph A354 is an optional authorization available to operators conducting operations under 14 CFR parts 91, 91 subpart K (part 91K), 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. Paragraph A354 authorizes the use of ADS-B In equipment for ITP.

NOTE: A part 125 LODA holder is an aircraft operator who is issued a LODA from §§ 119.23 and 125.5 (the requirement to hold an operating certificate and OpSpecs), and is identified in the Web-based Operations Safety System (WebOPSS) database as 125M. The "M" designation is assigned in WebOPSS to identify part 125 LODA holders in the database.

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C. General Guidance. For authorization to conduct ITP, the certificate holder/operator and their responsible principal inspector (PI) or Flight Standards District Office (FSDO) are required to use the nonstandard request process in Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713.

NOTE: PIs and FSDOs should refer to Figure 3-67C, A354 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart and Volume 3, Chapter 1, Section 1 for general guidance on processing and tracking proposals submitted for authorization to conduct ITP.

D. Required Documentation for Submission of Formal Proposal. A separate proposal must be submitted by the operator for each aircraft type at initial and subsequent requests for authorization to conduct ITP. Subsequent requests to add additional aircraft of the same make, model, and series (M/M/S) to an existing authorization should include the aircraft and equipment documentation contained in AC 90-114, Appendix 2, Section 6, paragraphs 4, 5, and 6. ITP proposals must contain the following information to be found acceptable for formal submission and FAA evaluation:

1) Letter of request for authorization to conduct ITP;

2) Aircraft qualification documentation;

3) ITP equipment description;

4) Proposed ITP operations area;

5) Proposed minimum equipment list (MEL) revisions;

6) Flight manual/pilot's operating handbook (POH) documentation;

7) Airworthiness documentation;

8) Dispatch/flight-following procedures (if applicable) or other persons with operational control; and

9) Pilot training.

E. ITP Proposal Evaluation Criteria. Specific evaluation criteria for ITP requirements can be found in AC 90-114, Appendix 2.

F. Related ADS-B Material and Contact Information.

1) Additional information and job aids related to ADS-B authorizations can be found in the applicable guidance section of each authorization in the WebOPSS.

NOTE: Flight Standards Service (AFS) Field Office (AFSFO) aviation safety inspectors (ASI) should make the appropriate application checklists and reference documents available to certificate holders/operators who do not have access to

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WebOPSS. Inspectors should encourage industry to complete the optional application checklist(s) prior to submission since it will expedite the review process.

2) For additional ADS-B information, please contact the following:

a) For general information on operation requirements and procedures, contact the Flight Technologies and Procedures Division (AFS-400) by phone at 202-385-4597, or in Lotus Notes at 9-AWA-AVS-AFS-400-Flight-Technologies-Procedures-Division/AWA/FAA.

b) For parts 121 and 135 special authorizations (300-series OpSpec/LOA), contact the Air Transportation Division (AFS-200) at 202-267-8166.

c) For parts 91, 91K, 125, and A125 special authorizations (300-series OpSpec/MSpec/LOA), contact the General Aviation and Commercial Division (AFS-800) at 202-385-9600/9601.

d) For continued airworthiness of ADS-B systems, contact the Aircraft Maintenance Division (AFS-300) at 202-385-6402.

e) For certification of ADS-B systems, contact the Avionics Systems Branch (AIR-130) at 202-385-4630.

f) For technical questions concerning the ADS-B Out performance requirements to support air traffic control (ATC) service final rule, contact (by mail) the Surveillance and Broadcast Services Program Office (AJE-6), Air Traffic Organization, FAA, 800 Independence Avenue SW, Washington, DC 20591; or by telephone at 202-385-8637.

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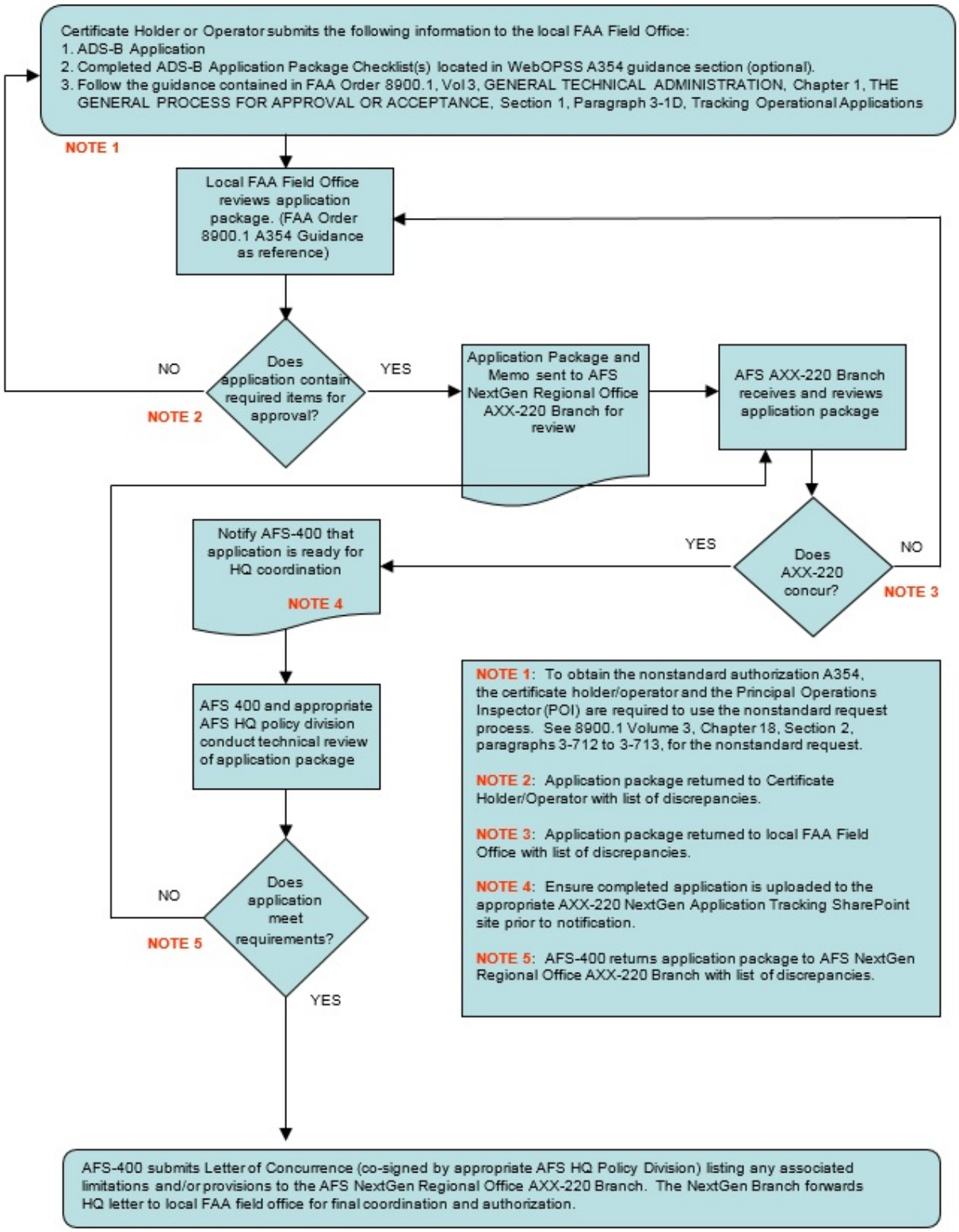
Figure 3-67C. A354 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart



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OPSPEC/MSPEC/LOA A355—AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST (ADS-B) IN OPERATIONS.

A. General. ADS-B IN is an enabling surveillance technology for Next Generation Air Transportation System (NextGen) intended to improve efficiency and safety in the National Airspace System (NAS). An operator may apply and qualify to conduct any combination of ADS-B IN operations contained in this authorization. The information in the general paragraphs applies to all ADS-B IN authorizations. There is additional specific guidance for each individual ADS-B IN authorization. Approving inspectors should review the general guidance (subparagraph C) before the specific guidance for the requested authorization.

NOTE: Direct the applicant to the current edition of Advisory Circular (AC) 90-114, Automatic Dependent Surveillance-Broadcast Operations, for a more detailed description of each ADS-B IN procedure and the application process.

B. Applicability. OpSpec/MSpec/LOA A355 is an optional authorization available to certificate holders conducting operations under 14 CFR parts 91K, 121, 125 (including Letter of Deviation Authority (LODA) 125M), and 135. Paragraph A355 authorizes ADS-B IN procedures, and is issued under the authority of 14 CFR part 91K, § 91.1015(a)(10); part 119, §§ 119.23(a)(3) and 119.49(a)(5); and part 125, § 125.5.

NOTE: A part 125 LODA holder is an aircraft operator who is issued a LODA from §§ 119.23 and 125.5 (the requirement to hold an operating certificate and OpSpecs) and is identified in the Web-based Operations Safety System (WebOPSS) database as 125M. The “M” designation is assigned in WebOPSS to identify part 125 LODA holders in the database.

C. General Guidance. For authorization to conduct ADS-B IN procedures, the certificate holder/program manager/operator and the responsible principal inspector (PI) or Flight Standards District Office (FSDO) must use the nonstandard request process in Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713.

NOTE: This authorization may only be issued with written concurrence from FAA Flight Standards (AFS) headquarters (HQ) Flight Technologies and Procedures Division (AFS-400), and either General Aviation and Commercial Division (AFS-800) or Air Transportation Division (AFS-200), as appropriate.

NOTE: PIs should see Figure 3-67B, A355 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart, and Volume 3, Chapter 1, Section 1, for general guidance on processing and tracking proposals submitted for authorization to conduct ADS-B IN procedures. They must provide the applicant with the appropriate ADS-B IN checklist, which must be completed and attached with supporting documents. The checklist is available in the WebOPSS guidance tab for the procedure.

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1) ADS-B IN.

a) The basic ADS-B IN application provides enhanced situational awareness to the pilots by presenting a display of nearby ADS-B traffic, on the ground and in the air. An ADS-B IN system includes at least one flight deck traffic display, depicting the relative position and related information of ADS-B-equipped aircraft, presented on a plan view. This display, known as a Cockpit Display of Traffic Information (CDTI), may be presented on a dedicated display or integrated into and presented on an existing display (e.g., navigation display (ND) or multifunction display (MFD)). In most installations, a moving map depicting key surface elements of the airport may be displayed when on the ground or within a predefined altitude/distance from an airport while airborne. The moving map function may also have an independent navigation database.

b) The CDTI will display nearby ADS-B OUT traffic and may also display Traffic Alert and Collision Avoidance System (TCAS) or Traffic Information Service-Broadcast (TIS-B) traffic, depending on the installation. The display will have functionality to allow the pilots to select a target to obtain additional information, which might not be automatically displayed, such as aircraft category, distance from own-ship, and groundspeed (GS). The system will also provide range selection and declutter functionality. The basic ADS-B IN system will optionally include functionality to perform the more advanced procedures authorized by this paragraph.

2) Training. Dispatchers, other persons authorized to exercise operational control, and participating pilots must complete the operator's FAA-approved training program prior to conducting ADS-B IN operations approved by this authorization. Each ADS-B IN operation may have additional requirements specific to the operation, but all ADS-B IN operations have the following ground training requirements in common. The approved training program must include:

a) ADS-B OUT/IN system overview, to include operating procedures and limitations of installed ADS-B equipment.

b) ADS-B IN normal procedures specific to the approved operation.

c) ADS-B IN minimum equipment list (MEL) procedures (as applicable).

d) ADS-B IN equipment limitations (pilots only).

e) Operation and understanding of the CDTI interface (pilots only).

f) Non-normal procedures specific to the approved operation (as applicable).

g) Specific crew coordination procedures for the approved operation (pilots only).

h) ADS-B flight planning, including region/country/airport-specific requirements or limitations on use (dispatchers or other persons responsible for flight planning or operational control).

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3) Manuals. The Airplane Flight Manual (AFM), Airplane Flight Manual Supplement (AFMS), Aircraft Operating Manual (AOM), Flight Operations Manual (FOM), or the pilot's operating handbook (POH), as appropriate, and associated checklists, as applicable to the specific operator, must include information to be used for the specific operation requested. Additionally, as applicable to the specific type of operation, the MEL and Dispatch Operations Manual (DOM) should be revised as necessary to accommodate the addition of the specifically approved ADS-B IN operations.

4) Dispatch/Flight Planning. Certain ADS-B IN procedures require coordination with the controlling air navigation service provider (ANSP). The procedure may require specific air traffic controller procedures or supporting ground automation. To facilitate this, correct aircraft equipment codes must be entered on the FAA and International Civil Aviation Organization (ICAO) flight plan. Currently, codes only indicate which frequency the ADS-B operates on, and whether the aircraft has ADS-B IN or ADS-B OUT. There are currently no codes that indicate specific ADS-B IN capabilities or approved procedures.

NOTE: Refer to the current edition of the FAA ICAO Flight Planning Interface Reference Guide for instructions on ADS-B equipment codes.

a) Flight planning should consider whether airports and airspace of intended operation are approved for ADS-B IN procedures. Verify that the applicant has training and procedures in place to limit authorized ADS-B IN procedures to approved airports, runways, and areas of operation.

b) Verify that the applicant has procedures in place to enter the correct ADS-B equipment/capability codes in the flight plan.

c) Verify that the applicant has procedures in place to amend ADS-B flight plan codes as a result of MEL actions, as appropriate.

5) MEL, if Applicable. The principal operations inspector (POI) will review the applicant's procedures for deferral of inoperative ADS-B IN equipment and coordinate with the principal maintenance inspector (PMI) and principal avionics inspector (PAI) during the evaluation and approval of the revised MEL. To seek MEL relief for installed ADS-B equipment, the applicant must submit a proposal to their POI for approval. The proposal must be made in accordance with established FAA Aircraft Evaluation Group (AEG) Master Minimum Equipment List (MMEL) revision procedures and Volume 4, Chapter 4. Approvals granted for specific operational procedures using ADS-B equipment require modification of the MEL (or equivalent) to address all dispatch conditions.

D. Evaluation of ADS-B IN Aircraft Eligibility and Maintenance Requirements.

1) General. The PMI and PAI are responsible for evaluating the acceptability of the installed ADS-B IN system for the intended operation and the acceptability of the proposed maintenance procedures to support continued airworthiness of the system. The PMI and PAI also provide technical support to the POI and the applicant throughout the approval process.

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2) Evaluation of Aircraft Eligibility. Installation of an ADS-B IN system is a major alteration to an aircraft type certificate (TC) and requires FAA approval through issuance of an amended TC, Supplemental Type Certificate (STC), or amended STC. The installed ADS-B IN system must meet the standards of Technical Standard Order (TSO)-C195b, Avionics Supporting Automatic Dependent Surveillance-Broadcast (ADS-B) Aircraft Surveillance Applications (ASA), or later version, or be found acceptable to the Administrator and be approved by the FAA.

a) Proposal Documentation. The applicant is responsible for submitting the following documentation to establish the eligibility of proposed aircraft for the requested ADS-B IN authorization:

1. Applicable aircraft TC, amended TC, or STC.

2. MEL, if applicable, with any limitations associated with ADS-B IN operations.

3. AFMS applicable to the ADS-B IN system installation.

4. Aircraft records indicating each ADS-B IN system installed on proposed aircraft has been tested to verify proper function for applicable operation(s).

5. For each proposed aircraft, a listing of the make/model and part number of the ADS-B IN system-specific components and applicable software versions associated with those components.

NOTE: Refer to the current edition of AC 20-172, Airworthiness Approval for ADS-B In Systems and Applications, for guidance on the installation of ADS-B IN systems.

NOTE: Refer to the current edition of AC 20-165, Airworthiness Approval of Automatic Dependent Surveillance-Broadcast (ADS-B) Out Systems, for guidance on the installation of ADS-B OUT systems.

NOTE: Portable ADS-B IN systems (transceiver/display device) cannot be used to meet the aircraft eligibility requirements associated with this authorization.

b) PMI and PAI Responsibility. The PMI and PAI are responsible for evaluating the submitted aircraft eligibility documentation to determine the following:

1. ADS-B IN system installed on each aircraft is in compliance with applicable aircraft TC, amended TC, or STC.

2. MEL revisions provide appropriate procedures for safe operation of aircraft with the ADS-B IN system inoperative or partially inoperative.

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3. Aircraft records demonstrate that each ADS-B IN system installed on proposed aircraft have been tested to verify proper function for the intended operation(s).

4. Installed ADS-B IN system components and software versions are applicable to the corresponding airframe serial number.

3) Evaluation of Maintenance Procedures. ADS-B IN system maintenance procedures must adhere to the applicable avionics manufacturer's instructions for continued airworthiness (ICA), as accepted by the FAA.

a) Proposal Documentation. The applicant is responsible for submitting the following ADS-B IN system maintenance procedures documentation for evaluation:

1. Applicable avionics manufacturer's ICA.

2. Applicable General Maintenance Manual (GMM) (as applicable) revisions that address the ICA.

3. Applicable ADS-B IN system Maintenance Review Board Report (MRBR).

4. Return-to-service test procedures following maintenance of the ADS-B IN system.

b) PMI and PAI Responsibility. The PMI and PAI are responsible for evaluating the submitted ADS-B IN maintenance procedures documentation to determine the following:

1. Maintenance procedures must address all aspects of the ICA.

2. MRBR recommendations applicable to the ADS-B IN system have been addressed.

3. Test procedures address ICA requirements and appropriate test equipment is available and used to verify ADS-B IN system performance prior to return to service. Full ADS-B system-level testing is required when the following conditions are met:

a. The main ADS-B data link transceiver is replaced.

b. An ADS-B IN source system is disturbed and there is a dedicated input to ADS-B that cannot be verified by other means (e.g., source system test and flight deck display).

E. Specific Guidance – Situational Awareness.

1) Operator Requirements. To authorize the use of ADS-B IN for situational awareness on the surface or while airborne, ensure that the certificate holder has:

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a) Procedures established for ensuring the ADS-B IN-specific navigation databases (if installed) will be current at the time of use.

b) Clearly established responsibilities among the crew for use of the CDTI and other ADS-B IN displays.

2) Pilot Training. Ensure the certificate holder's/operator's/program manager's pilot training emphasizes the following:

a) The device is used only to supplement what can be seen out the window (OTW) except when using authorized ADS-B IN procedures. Pilots must always conduct OTW scans per current procedures.

NOTE: On the surface, pilots must consider airport markings and signage viewed OTW as the primary location reference.

b) Not all ground/airborne traffic will appear on the display; only ADS-B OUT-equipped traffic will appear, and depending on the installation, TIS-B and/or TCAS traffic.

c) Pilots should not use the call sign or Aircraft Identification (ACID) (Flight Identification (FLT ID)) of observed traffic in radio communications, as this could create confusion for both air traffic control (ATC) and pilots monitoring the frequency.

d) Compliance with the certificate holder's established crew coordination procedures on the use of the CDTI and ADS-B IN information.

e) Use of the display does not change pilot or controller responsibilities.

f) If at any time the presented information becomes unreliable, inoperative, or a distraction, disregard the display.

g) CDTI traffic information does not replace any traffic advisories (TA) and/or resolution advisories (RA) provided by the aircraft's TCAS. RA response must be based on the TCAS display and approved procedures.

F. Specific Guidance – CDTI Assisted Visual Separation (CAVS).

1) CAVS Concept. CAVS is an ADS-B IN application that assists pilots in maintaining separation from ADS-B OUT-equipped aircraft during visual separation. Currently, CAVS may only be used in the approach phase of flight. Traffic displayed by certified ADS-B IN systems must meet established standards of accuracy and integrity. Because of this, CAVS information may be used as a substitute for continuous visual observation of traffic-to-follow (TTF) under specified conditions. CAVS does not relieve the pilot of his responsibility to see and avoid other aircraft. ATC maintains separation responsibility from all other aircraft and for the orderly flow of traffic to the runway. Currently, there is no new phraseology approved for the use of CAVS. ATC will have no knowledge that a pilot is conducting CAVS.

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NOTE: CAVS is currently restricted to following aircraft to the same runway of intended landing at specific runways and airports.

2) CAVS Requirements. In addition to the requirements stated in the general guidance above, ensure that the certificate holder complies with the following:

a) Ensure the certificate holder's training program addresses CAVS and that pilots are trained that visual acquisition is required before CAVS can be used.

b) Ensure that the certificate holder has established procedures for setting the selectable range alert and that it may not be set for less than 2.5 nautical miles (NM).

c) Ensure that the certificate holder has clearly established criteria for discontinuation of CAVS, to include loss of Visual Meteorological Conditions (VMC) and loss of ADS-B IN information.

3) Dispatch. There are no additional dispatch procedures for CAVS.

G. Specific Guidance – In-Trail Procedure (ITP). Reserved.

H. Specific Guidance – Merging and Spacing (M&S). Reserved.

I. Specific Guidance – Interval Management-Spacing (IM-S). Reserved.

J. Required Documentation for Submission of Formal Proposal. A separate proposal must be submitted by the certificate holder for each aircraft type at initial and subsequent requests for authorization to conduct an ADS-B IN procedure. The ADS-B IN proposal must contain the following information to be found acceptable for formal submission and FAA evaluation:

1) Letter of request for authorization to conduct the ADS-B IN procedure.

2) Operation manuals and checklists.

3) Proposed MEL revision.

4) Compliance documentation for the ADS-B IN avionics.

5) Maintenance procedures (see subparagraph D above).

6) Pilot training and, where specified in this guidance, training for persons authorized to exercise operational control. (See subparagraph C2) and specific guidance for the requested authorization(s).)

K. ADS-B IN Proposal Evaluation Criteria. Refer to AC 90-114 for expanded clarification of ADS-B IN proposal requirements.

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L. Related ADS-B Material and Contact Information.

1) Refer to the A355 guidance section of the authorization in the WebOPSS for additional information and job aids related to ADS-B authorizations.

NOTE: AFS aviation safety inspectors (ASI) must make the appropriate application checklists and reference documents available to certificate holders who do not have access to WebOPSS. Inspectors should direct the industry to complete the specific ADS-B application checklist(s) prior to submission.

2) For additional ADS-B information, please contact the following:

a) For general information on operation requirements and procedures, contact the Flight Technologies and Procedures Division (AFS-400) by telephone at 202-267-8790.

b) For parts 121 and 135 special authorizations (300-series OpSpec/LOA), contact the Air Transportation Division (AFS-200) at 202-267-8166.

c) For parts 91K, 125, and 125M special authorizations (300-series OpSpec/MSpec/LOA), contact the General Aviation and Commercial Division (AFS-800) at 202-385-9600/9601.

d) For continued airworthiness of ADS-B systems, contact the Aircraft Maintenance Division, Avionics Branch (AFS-360) at 202-385-6402.

e) For certification of ADS-B systems, contact the Systems and Equipment Standards Branch (AIR-130) at 202-267-4613.

f) For technical questions concerning the ADS-B OUT performance requirements to support ATC service final rule, contact (by mail) the Surveillance and Broadcast Services (SBS) Program Office (AJE-6), Air Traffic Organization (ATO), FAA, 800 Independence Avenue SW., Washington, DC 20591; or by telephone at 202-385-8637.

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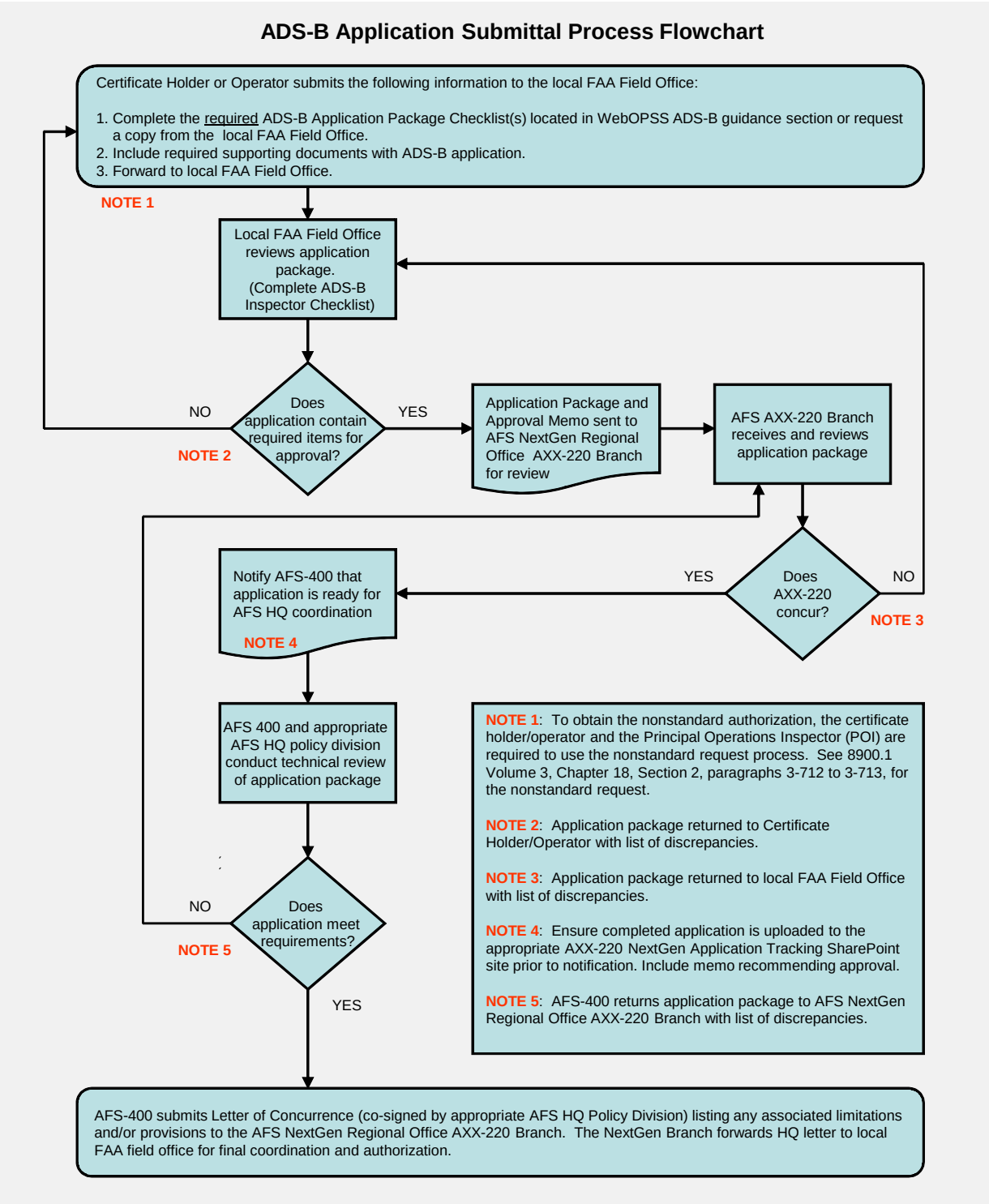
Figure 3-67B. A355 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart



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OPSPEC A362—PARABOLIC FLIGHT OPERATIONS.

A. General. Parabolic flight occurs when an aircraft follows the trajectory of a parabola resulting in a period of weightlessness or zero gravity for persons aboard the aircraft. An operator that intends to conduct parabolic flight to create weightlessness for any period of time requires issuance of OpSpec A362. OpSpec A362 is an authorization to conduct parabolic flight operations under 14 CFR part 121 as a supplemental operation in accordance with the Supplemental Type Certificate (STC) and exemptions applicable to parabolic flight operations. All limitations and provisions of OpSpec A362 are applicable. OpSpec A362 requires headquarters (HQ) approval prior to conducting such operations.

B. Applicability, Authorization, and Procedures for Approval. This OpSpec can be issued to any part 121 certificate holder to include a combined certificate holder (14 CFR part 121/135), provided they meet all limitations and provisions. Before requesting authorization for parabolic operations, the certificate-holding district office (CHDO) must verify that the certificate holder has met all required limitations and provisions, and that the aircraft has been added to OpSpec A003, Airplane/Aircraft Authorization, and OpSpec D085, Aircraft Listing. Once this is accomplished, the CHDO will prepare a memo requesting authorization to issue OpSpec A362. The memo must be addressed to the Air Transportation Division (AFS-200), through the regional Flight Standards division (RFSD). AFS-200 will coordinate with the Aircraft Maintenance Division (AFS-300). Once both divisions determine it is appropriate, AFS-200 will send a memo back to the CHDO through the RFSD authorizing them to issue OpSpec A362.

C. Authorized Airplanes and Equipment. The authorized aircraft list (Table 1, Airplane Authorization for Parabolic Flight Operations) must list all aircraft by type, registration number, the appropriate STC number, and exemption number. All STCs and exemptions must be granted prior to issuance of OpSpec A362.

D. OpSpec A003. When a certificate holder adds a new make/model aircraft, the principal inspectors (PI) must follow Volume 10, Chapter 11, Major Changes in Operational Authority. If the aircraft will be used for parabolic operations only, the PI must place a limitation into OpSpec A003. Use the nonstandard text box and list each airplane by type and registration number. Make a statement within that text box that the airplanes used for parabolic operations cannot be used for any other air transportation operations. The parabolic exemption may also require additional limitations to be placed in OpSpec A003 (e.g., STC number to be placed into text box). The PI must review those parabolic exemptions and place any required limitations as directed into the OpSpecs. Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713 provide guidance on nonstandard text, which also requires HQ approval. In this case, one memo requesting both approvals will suffice. Be sure to include a draft copy of OpSpec A003 along with OpSpec A362 when forwarding the request for approval to HQ.

E. Additional Limitations and Provisions.

1) Any Aircraft Flight Manual (AFM) limitations issued as a result of the change in configuration must be spelled out in the appropriate flight manuals and followed.

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2) When conducting operations in accordance with the STC and exemptions applicable to parabolic flight operations, the aircraft listed in Table 1 of OpSpec A362 may not be used in air transportation passenger-carrying operations. They can only be used in parabolic operations.

3) Passenger-carrying authorization under this OpSpec only applies to parabolic flight operations. When conducting parabolic flight operations, the certificate holder must comply with passenger-carrying requirements of part 121, as if the flight were air transportation, to include all provisions of 14 CFR part 117. Airplanes authorized for use in parabolic operations in Table 1 of OpSpec A362 must be listed in OpSpec A003 as passenger-carrying.

4) The parabolic flights are restricted to intrastate operations. All parabolic flights will commence and terminate at the same airport unless deviating for operational (e.g., weather) or emergency reasons.

5) Training and checking requirements.

a) Crewmembers and other operations personnel used for these parabolic flight operations must have completed the additional ground and flight training required for parabolic flight operations in accordance the certificate holder's approved training program.

b) In addition to the requirements in part 121 appendices E and F, flightcrew members must complete training and checking in the additional maneuvers and procedures used in the conduct of parabolic flights, including recurrent training every 12 calendar-months.

6) The certificate holder must have a maintenance program authorized by OpSpecs specific to time limitation and tasks identified due to parabolic flight, which will include procedures for the installation, inspection, and removal of the airplane's interiors.

7) The certificate holder must have approved policies and procedures for parabolic flight operations in the certificate holder's operations manuals as required by part 121, § 121.135. The specific procedures for parabolic flight shall address the following:

a) Preflight check procedures that ensure that cargo compartments are devoid of any contents; and

b) Procedures for illness and injury of participants during parabolic flight operations, and subsequent termination and diversion of that flight operation if warranted to include a qualified medical opinion as to whether medical attention should be sought.

8) The certificate holder must address, in its approved minimum equipment list (MEL), those items that are normally granted relief that must be operational for parabolic flights.

9) The certificate holder must show compliance with §§ 121.803 and 121.805.

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OPSPEC/LOA A447—EMERGENCY AIRWORTHINESS DIRECTIVE NOTIFICATION.

A. Applicability. OpSpec/LOA A447 establishes emergency Airworthiness Directive (AD) notification and receipt requirements. The FAA will issue A447 to owners and operators conducting transport category aircraft operations under 14 CFR parts 121, 121/135, 125, 125M, and 129. (Part 129 foreign air carrier and foreign operator guidance is found in Volume 12, Chapter 2, Section 3.) The principal inspector (PI) should fill out the appropriate AD notification contact information for the operator and issue A447.

B. When an AD is Issued. The owner or operator of an aircraft is responsible for maintaining that aircraft in an Airworthy condition, as required by 14 CFR part 91, § 91.403(a). ADs are substantive regulations issued by the FAA in accordance with 14 CFR part 39 when an unsafe condition has been found to exist in particular aircraft, engines, propellers, or appliances installed on aircraft. ADs are also issued when that unsafe condition is likely to exist or develop in other aircraft, engines, propellers, or appliances of the same type design. Once an AD is issued, no person may operate a product to which the AD applies, except in accordance with the requirements of that AD. The principal operations inspector (POI), along with the principal avionics inspector (PAI) and the principal maintenance inspector (PMI), are responsible to see that a certificate holder complies with an applicable AD for the operations of any particular aircraft. More information may be found at http://www.faa.gov/aircraft/air_cert/continued_operation/ad/.

C. Emergency ADs Require Immediate Action. The FAA Aircraft Certification Service (AIR) distributes emergency ADs via the United States Postal Service (USPS) and email. Air carriers/operators of transport category aircraft conducting operations under parts 121, 121/135, 125, and 125M, are required to provide a designated person or organization, 24-hour telephone number, and a 24-hour monitored email address for emergency AD notification.

D. Confirmation of Emergency AD Receipt. Parts 121, 121/135, 125, and 125M certificate holders will immediately confirm receipt of an emergency AD by replying to the emergency AD email message. This assures the FAA that all operators affected by an emergency AD have been notified in time to comply with its requirements and avoid any undue safety risks. In the absence of a timely response by the operator to the email notification, the FAA will attempt to contact the operator by telephone.

E. Action. Principal inspectors (PI) should:

1) Review the completeness and accuracy of the Web-based Operations Safety System (WebOPSS) Maintain Operator Data > Airworthiness Directive Notification information for each assigned parts 121, 121/135, 125, and 125M certificate holder. Select the row of the “Person/Organization” and click the “Edit” button to review/edit the AD notification form. This information will be used to populate OpSpec/LOA A447. An owner/operator may assign several people and/or organizations to receive ADs; however, only one may be assigned as the responsible party. Check the “International” box if the owner/operator is located outside the United States or its holdings. Populate and/or validate the required AD notification fields,

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including the "Responsible Party's E-mail Address." Emergency ADs will be sent to the responsible party's email address.

2) Populate OpSpec/LOA A447 and issue it to each assigned parts 121, 121/135, 125, and 125M owner/operator. The certificate holder is not required to sign A447.

F. Historical ADs. ADs from the 1940s to the present are now available in electronic format for full-text searching in the FAA Regulatory and Guidance Library (RGL) at http://rgl.faa.gov or on the FAA's Web site at http://www.faa.gov/regulations_policies/airworthiness_directives/. A link is provided to subscribe (or modify a subscription) to receive, via email, ADs and Special Airworthiness Information Bulletins (SAIB). PIs may direct questions to AIR via phone at 405-954-4103, or email at rgl@faa.gov.

OPSPEC/MSPEC A449—ANTIDRUG AND ALCOHOL MISUSE PREVENTION PROGRAM. Operations Specification (OpSpec)/Management Specification (MSpec) A449, Antidrug and Alcohol Misuse Prevention, is applicable to certificate holders under 14 CFR parts 121, 121/135, 135, and 145, and program managers under 14 CFR part 91 subpart K (part 91K). Certificate-holding district offices (CHDO) must use Letter of Authorization (LOA) A049, Letter of Authorization for Commercial Air Tour Operations and Antidrug and Alcohol Misuse Prevention Program Registration, for part 91 commercial air tour operators conducting sightseeing operations under part 91, § 91.147.

- Certificate holders and program managers are responsible for providing information required by 14 CFR part 120 to the CHDO for the issuance of OpSpec/MSpec A449.
- When changes occur, certificate holders/program managers are responsible for providing the CHDO current information necessary to amend A449.

A. Applicability. Prior to operations, the following must comply with the Antidrug and Alcohol Misuse Prevention Program in accordance with part 120 and must have OpSpec/MSpec A449 issued by the CHDO:

1) Parts 121, 121/135, and 135 certificate holders.

2) Part 91K program managers. The CHDO must issue MSpec A449, indicating where required records are maintained.

3) Part 145 repair stations (see Volume 3, Chapter 18, Section 10).

NOTE: Section 91.147 commercial air tour operators, see the LOA A049 paragraph.

B. Issuance. Upon the operator demonstrating compliance, the CHDO must issue all parts 121, 121/135, and/or 135 certificate holders OpSpec A449.

1) For the issuance of OpSpec A449, current parts 121, 121/135, and/or 135 certificate holders must provide information required by part 120 to their CHDO.

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2) New parts 121, 121/135, and/or 135 certificate holders must have an Antidrug and Alcohol Misuse Prevention Program and OpSpec A449 issued by their CHDO before beginning operations.

3) The Antidrug and Alcohol Misuse Prevention Program shall be implemented concurrently with the beginning of such operations.

4) When certificate holders no longer possess their certificate, they must cease testing under their Antidrug and Alcohol Misuse Prevention Program, and the CHDO should archive OpSpec A449.

5) Part 135 certificate holders must declare they have 50 or more safety-sensitive employees or fewer than 50 safety-sensitive employees. Were the number to change from 50 or more to fewer than 50, or vice versa, the certificate holder must inform the CHDO, which should amend OpSpec A449.

6) Regardless of the number of safety-sensitive employees in their company, certificate holders that operate under parts 121, 121/135, and/or 135 are required to report testing data annually to the Office of Aerospace Medicine (AAM).

NOTE: For recording LOA A049 for commercial air tours conducted under § 91.147, see the LOA A049 paragraph.

C. Restriction. No applicable certificate holder or operator shall use a contractor's employee to perform safety-sensitive functions who is not subject to its own or a certificate holder's or operator's Antidrug and Alcohol Misuse Prevention Program. All new, applicable certificate holders and operators must ensure their contract employees who perform safety-sensitive functions participate in an approved Antidrug and Alcohol Misuse Prevention Program.

D. Responsibilities. The Drug Abatement Division (AAM-800) develops, implements, administers, evaluates, and monitors compliance of the applicable aviation industry's drug and alcohol testing programs. Regulatory oversight of the FAA Antidrug and Alcohol Misuse Prevention Program is the exclusive responsibility of AAM-800, which shall provide guidance, inspections, and enforcement activity. Indication of regulatory violation of these provisions must be referred to AAM-800.

E. Questions. All questions regarding the Drug and Alcohol Testing Program may be directed to the Office of Aerospace Medicine, Drug Abatement Division (AAM-800), at 800 Independence Avenue, SW., Washington, DC 20591 or at drugabatement@faa.gov.

OPSPEC A501—LIABILITY INSURANCE SUSPENSION FOR SEASONAL OPERATIONS.

A. Liability Insurance Does Not Apply to Certificate Holders With Operating Certificates. Liability insurance coverage and the associated Department of Transportation (DOT) forms (Office of the Secretary of Transportation (OST) Form 6410, U.S. Air Carrier Certificate of Insurance) are an inclusive part of the economic authority required for parts 121

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and 135 air carrier certificate holders. This is not applicable to those with operating certificates. 14 CFR part 205, § 205.4(b) states, in part, that "Aircraft shall not be listed in the carrier's operations specifications with the FAA and shall not be operated unless liability insurance coverage is in force."

B. Suspending Liability Insurance for Seasonal Operations. Title 14 CFR part 119, § 119.61(b)(4) provides for the issuance of OpSpec A501, Liability Insurance Suspension for Seasonal Operations, which effectively suspends the air carrier certificate holder's OpSpecs and requirement for liability insurance for the period of time established in Table 1 of OpSpec A051. The operator cannot use the aircraft during that period of time to conduct operations in air transportation. The POI and the PMI must coordinate this effort.

C. Circumstances Under Which to Issue OpSpec A501. OpSpec A501 may be issued in order to comply with the requirements of § 119.61, § 205.4(b) and, if the air carrier certificate holder:

- Does not want to surrender its certificate during nonoperational periods,
- Requests the issuance of OpSpec A501 in writing, specifying the date it chooses to cease operations and the date it will resume operations,
- Wants to cancel the liability insurance on all of its aircraft for a period of 60 days or more during the specific period of non-use, and
- Completely ceases operations for a period of 60 days or more during the specific period of non-use.

D. No Status Change to VIS or OPSS. The status of the air carrier certificate holder's certificate remains active even though the OpSpecs are in the "suspension" status. Make no status changes to the Enhanced Vital Information Database (eVID) or the OPSS.

E. Opting to Not Carry Liability Insurance. If the air carrier certificate holder does not want to cease all operations but wants only to reduce the number of aircraft operated for a period of time and not carry the liability insurance for those aircraft, it has two options:

1) Remove those aircraft completely from its OpSpecs, or

2) Place those aircraft into long term maintenance or long term storage and issue OpSpec D106, Aircraft in Long Term Maintenance or Storage (reference Volume 3, Chapter 18, Section 6, Parts D and E—Maintenance MSpecs/OpSpecs.

F. Notification of Suspension of Insurance. The air carrier certificate holder or its insurance company will send notification of the suspension of liability insurance to the appropriate FAA or DOT office as required by part 205, § 205.7(a). (The FAA will record the notification and the red alert clause, "Insurance in a Non-Compliant State," will appear at the top of the "Maintain Operations Specifications" window in the OPSS for that certificate holder.) (Use the "Review Insurance Info" selection in the OPSS to view the details of the noncompliance.)

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G. Separate Uses for OpSpecs A501 and D106. At no time will OpSpecs A501 and D106 be active at the same time. These paragraphs are developed as separate provisions for specific needs. (See Volume 3, Chapter 18, Section 6 for guidance on OpSpec D106.)

H. Start Up Procedures and Rescinding OpSpec A501.

1) Before the "Re-Start of Operation" date listed in Table 1 of OpSpec A501, the air carrier must reinstate the required liability insurance. OST Form 6410 must be filed with the appropriate FAA or OST office at least 5 days prior to the "Re-Start of Operation" date listed in Table 1 of the OpSpec.

2) PIs should verify with AFS-260 (for air taxi operators), AAL-230 (for Alaskan air carriers), and OST-X-56 (for DOT certificated and commuter carriers) that the air carrier has filed evidence of liability insurance coverage as required by 14 CFR part 205 and that it otherwise continues to hold the necessary economic authority to resume operations.

3) See Volume 6, Chapter 2, Section 38, Evaluate a Part 121/135.411(a)(2) Operator Aircraft Storage Program, paragraph 6-1048, OpSpec D106, Aircraft in Long Term Maintenance or Storage for additional guidance in regard to liability insurance.

4) OpSpec A501 must be rescinded and archived in the OPSS. Again, make no changes to the VIS or the OPSS for the certificate status. When the required liability insurance documentation is received by AFS-260, the red alert clause will be removed for that certificate holder. See Volume 3, Chapter 18, Section 2, Automated Operations Safety System (OPSS), paragraph 3-718, OPSS Liability Insurance Subsystem, for information regarding the alert clause.

5) The principal inspector must review the recency requirements of § 119.63 for the air carrier certificate holder and reexamine as necessary prior to the start of the seasonal operations.

OPSPEC A502—AIR CARRIER MERGER AND/OR ACQUISITION.

A. General. OpSpec A502 is a nonstandard, time-limited OpSpec that requires coordination with, and approval from, the appropriate headquarters (HQ) policy division. Upon receiving approval from HQ, principal inspectors (PI) will issue A502 to each certificate holder involved in a merger and/or acquisition as a means of authorizing the plans for transition during the merger or acquisition process. Certificate holders involved in a merger or acquisition will lay out their plan for the transition that will occur throughout the merger or acquisition process by entering information in the appropriate sections of A502.

B. Surviving Certificate Holder Responsibility. FAA approval of a merger and/or acquisition transition plan occurs at the regional Flight Standards division (RFSD) of the certificate-holding district office (CHDO) who will have oversight responsibility of the surviving certificate holder in the merger/acquisition. The surviving certificate number (the certificate designator followed by four additional characters, e.g. TWRA118A) identifies the surviving certificate holder, regardless of the surviving name chosen. Typically, the RFSD will form a Joint Transition Team (JTT) to manage the merger/acquisition. The RFSD of the

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surviving certificate holder will contact the Air Transportation Division (AFS-200) as soon as practicable upon the knowledge of the pending merger or acquisition, and ultimate selection of the JTT. The RFSD will provide AFS-200 with a point of contact (POC) for the merger or acquisition at this time. Although the overall merger/acquisition transition plan is approved at the RFSD level, OpSpec A502 must be approved by AFS-200 in coordination with the Aircraft Maintenance Division (AFS-300). Upon receiving an approval memo from HQ, PIs will issue OpSpec A502. OpSpec A502 is dynamic and should be updated as significant events in the merger or acquisition process occur. Each update of A502 must also be approved by AFS-200, in coordination with AFS-300. The approval process flow is diagrammed in Figure 3-82, Approval Process Flow Diagram for OpSpec A502.

NOTE: Each certificate holder involved in a merger or acquisition will be issued an A502. This means that A502 will be issued to the intended surviving certificate holder, as well as each intended merged or acquired certificate holder. Additional guidance regarding the merger and/or acquisition process is located in Volume 3, Chapter 34. The OpSpec is currently only available to parts 121 and 135.

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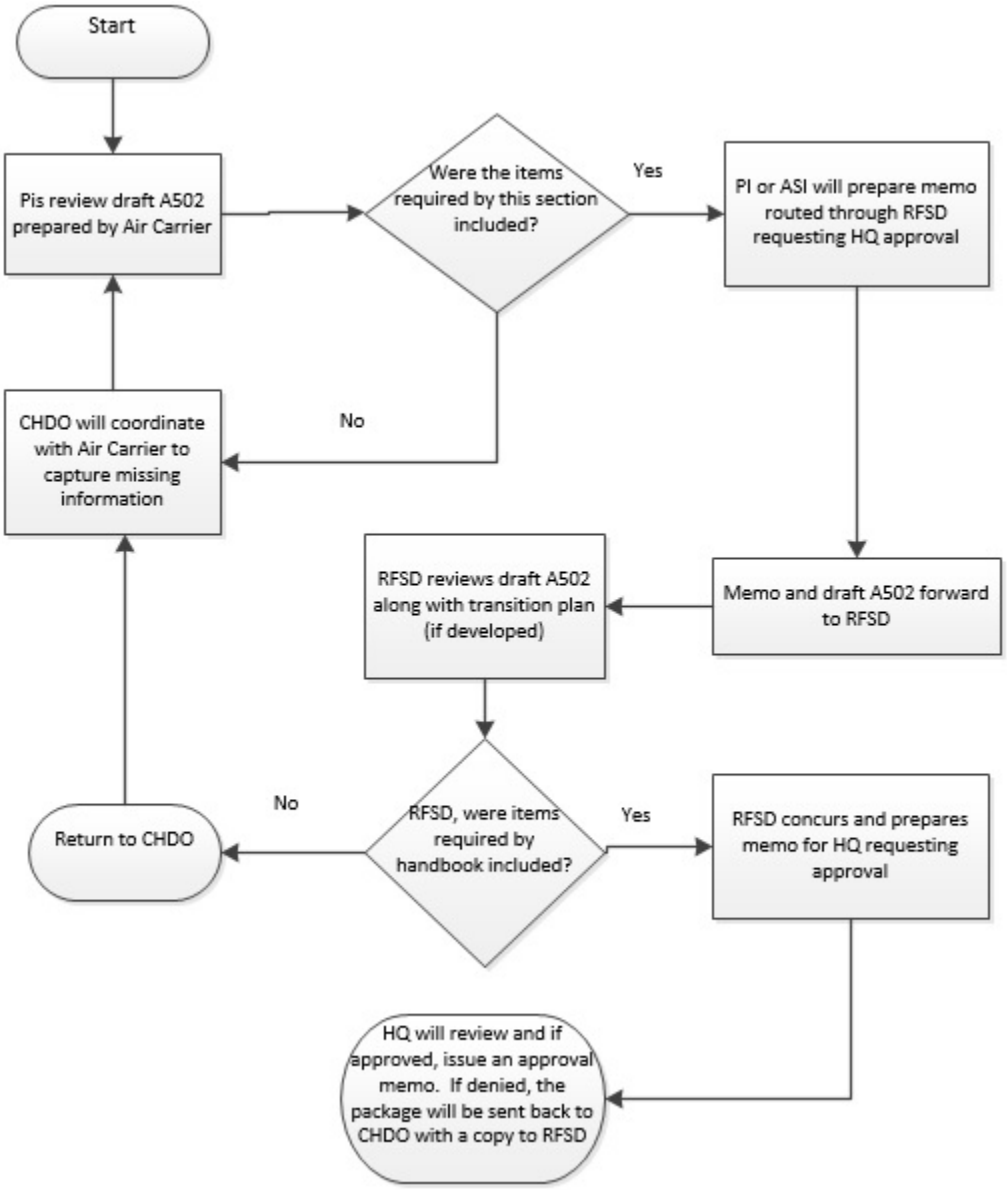
Figure 3-82. Approval Process Flow Diagram for OpSpec A502



C. OpSpec A502, Paragraph A. Paragraph A contains three fields in which a PI or certificate holder will enter the following information.

NOTE: The name of the certificate holder will be automatically populated into paragraph A of the A502 template by WebOPSS.

1) The PI will enter the name of the other certificate holder involved in the merger or acquisition in the first text box in paragraph A.

2) The PI will enter the date the merger or acquisition process will begin in the second text box in paragraph A. This date will indicate the commencement of the transition phase.

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3) The PI will enter the description of the estimated time period within which the merger and/or acquisition will be accomplished and completed in the third text box of paragraph A (e.g., 12 months). It is also acceptable if a PI or certificate holder wishes to enter an actual date as opposed to a time period (e.g., 10/26/2011).

D. OpSpec A502, Paragraph B. Paragraph B contains specific sections, General, Operations, and Airworthiness, that provide an outline of certain conditions that certificate holders must meet while operating during the merger and/or acquisition transition period. PIs responsible for the subject of each field must review and agree to all of the information contained therein if a field is populated by the certificate holder, otherwise the PI responsible for each field will enter the information.

1) The "General" Section. PIs of both specialties (Operations or Airworthiness) will use this section to identify conditions that do not belong specifically to operations or airworthiness. Examples of key items that must be entered into the "General" section include, but are not limited to:

a) Estimated Single Operating Certificate Date. This is the date when the certificate holder operates as a single air carrier and has a singular system for operational control.

b) OpSpecs Requiring HQ Approval. List all OpSpecs that require HQ approval (e.g., 300-series, nonstandard 500-series, and OpSpecs containing optional/nonstandard text ("Text 99")). All HQ-approved OpSpecs and nonstandard text authorizations for each certificate holder must be reapproved by HQ for continued use by the surviving certificate holder. In other words, nonstandard OpSpecs and text authorizations for one certificate holder may not be applied to another without the express permission of the appropriate HQ policy division.

c) Pilot Records Improvement Act of 1996 (PRIA). A502 must contain a statement of how the surviving certificate holder intends to comply with PRIA.

d) Demonstration of Emergency Evacuation Procedures. A502 must contain a statement or plan of how the surviving certificate holder intends to meet the regulatory requirements of 14 CFR part 121, § 121.291 for demonstration of emergency evacuation procedures. The plan must address demonstration of aircraft newly introduced to the surviving certificate holder, as well as a change in the number, location, or emergency evacuation duties or procedures of the certificate holder's flight attendants (F/A).

e) Training of Station Personnel. A502 must contain a statement as to how the surviving certificate holder intends to train station personnel to a single standard of operation.

f) Surviving Certificate Holder Name. The name of the surviving certificate holder and certificate designation.

g) Flight Call Signs. Each A502 must contain information regarding flight call signs and numbering, specific to each certificate holder involved in the merger or acquisition process. Call signs, especially with livery changes, must be coordinated with the appropriate Air Traffic Organization (ATO).

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h) Hazardous Material (hazmat) Training. A502 must contain a statement of how the surviving certificate holder intends to comply with the hazmat training requirements of part 121, Appendix O, for employees acquired during the merger or acquisition.

i) Drug and Alcohol Testing. A502 must contain a statement of how the surviving certificate holder intends to comply with the drug and alcohol testing requirements of 14 CFR part 120, for employees acquired during the merger or acquisition.

j) Recordkeeping. A502 must contain a statement of how the each certificate holder intents to comply with recordkeeping requirements such as those listed in part 121 subpart V.

2) The "Operations" Section. The principal operations inspector (POI) is responsible for this section. The key areas that should be addressed in the "Operations" section include, but are not limited to:

a) Operational Control. Identify which air carrier will assume operational control responsibility over the merged or acquired operation and the date that transfer is planned to take place. This date should coincide with the "Estimated Single Operating Certificate" date entered into the "General" section of A502. If the changeover is to be phased in over a period of time, such as by fleet, enter appropriate milestones here. Milestones listed in this field must correlate with the same milestones in the transition plan.

b) Training and Qualification. Identify the planned dates that flightcrew member, aircraft dispatcher (14 CFR part 121 domestic and flag), and F/A training and qualification will be completed. If two or more fleets will be phased-in over different time periods, enter the fleet types and their associated training and qualification date milestones in the free text fields provided. Include training for flight following and operational control personnel in this section, as appropriate. Milestones listed in this field must correlate with the same milestones in the transition plan.

c) Proving Tests. Identify the requirements and the plan of action regarding the proving tests required to add a new type of aircraft, operation, and/or route (area of operation).

d) Operational Authorizations. Identify operational authorizations, such as Extended Operations (ETOPS), exemptions, deviations, etc., and list the plan of action for merging and/or acquiring each of the authorizations.

NOTE: POIs of certificate holders with large varied fleets must be aware that merging ETOPS authorizations may be a lengthy process.

e) Other. Identify any other operational milestones such as manual revisions, computer systems, and computer system support.

3) The "Airworthiness" Section. The principal maintenance inspector (PMI) and principal avionics inspector (PAI) are responsible for this section. The key areas that must be addressed in the "Airworthiness" section include, but are not limited to:

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a) Maintenance Program Manuals. List maintenance program manual milestones in this field.

b) Training and Qualification of Maintenance Personnel. Identify the training and qualification requirements of the mechanics and inspectors, and list the plan of action for accomplishing the necessary training.

c) Minimum Equipment List (MEL) Management Program and Maintenance Control System. Identify the transition plan for MEL management programs and the associated maintenance personnel and maintenance control systems.

d) Other. Identify any other appropriate maintenance milestones such as manual revisions, computer systems, and computer system support.

OPSPEC/TSPEC A504—INITIAL APPROVAL OF AN AIRLINE TRANSPORT PILOT CERTIFICATION TRAINING PROGRAM.

A. General. A504 is issued only with concurrence from the Air Transportation Division (AFS-200) or the General Aviation and Commercial Division (AFS-800), as applicable, for 14 CFR parts 121, 135, 141, and 142 certificate holders. The authorization indicates initial approval to conduct the Airline Transport Pilot (ATP) Certification Training Program (CTP).

B. Purpose. Completion of the ATP CTP is required by 14 CFR part 61, § 61.156 after July 31, 2014, for those applicants seeking an ATP Certificate with airplane category and multiengine rating prior to taking the knowledge test.

C. Process to Obtain Authorization. The current edition of Advisory Circular (AC) 61-138, Airline Transport Pilot Certification Training Program, provides guidance on the minimum curriculum requirements and the process by which the FAA will approve an ATP CTP as required by § 61.156. Volume 3, Chapter 62, Sections 1 and 2, provide detailed instructions on reviewing and approving an ATP CTP.

D. Issuing OpSpec/TSpec A504. OpSpec/TSpec A504 may only be issued after receiving approval from AFS-200 for part 121 or 135 air carriers and part 142 training centers and from AFS-800 for part 141 pilot schools. Based on the information provided in the program, complete the information required by the tables in Template A504.

OPSPEC A545—AUTHORIZED AIRPORTS FOR DOMESTIC OR FLAG SUBSTITUTE SCHEDULED OPERATIONS. OpSpec A545 is an optional, standard, and time limited OpSpec that can be issued to a certificate holder to temporarily authorize airports for use in 14 CFR part 121 substitute scheduled operations. Each substitute scheduled operation is limited to 5 consecutive calendar-days and may only be conducted once in any 30-day period using the same airports. A certificate holder may conduct a substitute scheduled operation on behalf of another certificate holder in accordance with 14 CFR part 119, § 119.53(e). For the purposes of A545, a single substitute scheduled operation on the behalf of another certificate holder may consist of more than one flight.

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A. A545 is Not Always Required. The following substitute operations do not require A545:

1) A545 is not required for a substitute scheduled operation conducted by a certificate holder who holds the same OpSpec authority for a kind of operation; area of operation; and airports for scheduled operations, as the certificate holder for whom the substitute operation is being conducted.

a) The certificate holder conducting the substitute operation has the identical authority in OpSpec A001 to conduct domestic or flag operations, as applicable to the substitute operation.

b) The certificate holder conducting the substitute operation has all of the required authorized areas of operation in OpSpec B050, through which, and in which the substitute operation will be conducted.

c) The certificate holder conducting the substitute scheduled operation has the authority in OpSpec C070 to conduct scheduled operations to the airports involved in the substitute operation.

2) A545 is not required for a substitute supplemental operation.

B. When to Issue A545. A principal operations inspector (POI) may issue A545 to a certificate holder with the appropriate domestic and/or flag authority who desires to conduct a substitute scheduled operation on behalf of another certificate holder, but does not have the airports involved in the substitute operation listed as airports for scheduled operations in OpSpec C070.

1) OpSpec C070. OpSpec C070, Airports Authorized for Scheduled Operations, is where a POI authorizes the list of airports that a certificate holder uses in schedule operations. Certificate holders who conduct regular scheduled operations must ensure that each scheduled airport ground station has the appropriate personnel and facilities to ensure adequate passenger and/or cargo handling, as well as the aircraft ground servicing and maintenance support required by § 121.105. Prior to allowing a certificate holder to list airports in C070, POIs need to consider environmental impacts to each airport. Environmental impact considerations are outlined in FAA Order 8900.1 Volume 11, Chapter 6 and the current edition of FAA Order 1050.1, Environmental Impacts: Policies and Procedures.

2) OpSpec A545. If a certificate holder does not have the airports involved in a substitute scheduled operation listed in C070, POIs may authorize a certificate holder to temporarily list airports in A545. Using A545 as an alternative to C070 is permissible, provided the certificate holder for whom the substitute operation is being conducted has the appropriate airport ground station personnel and facilities to support the substitute aircraft. These personnel and facilities must be available and used by the certificate holder conducting the substitute scheduled operation.

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C. Regulatory Requirements for Substitute Operations. Section 119.53(e) allows a certificate holder who is authorized to conduct part 121 or 14 CFR 135 operations, to conduct a substitute operation on behalf of another certificate holder, under the following conditions:

1) The certificate holder conducting the substitute operation must hold the same Department of Transportation (DOT) Economic Authority as the certificate holder arranging for the substitute operation.

2) The certificate holder conducting the substitute operation must hold the same authority in OpSpec A001 to conduct a kind of operation as the certificate holder arranging for the substitute operation. "Kind of operation" is defined in 14 CFR § 110.2, (e.g., domestic, flag, or supplemental).

3) The certificate holder conducting the substitute operation must conduct that operation in accordance with the same operations authority (scheduled airports and authorized areas of en route operations) held by the certificate holder arranging for the substitute operation.

D. List Airports in A545. Section 119.49(a)(4)(ii) prohibits a certificate holder from conducting domestic or flag operations using any airport not listed in its OpSpecs. If an airport is not listed in C070 of a certificate holder's OpSpecs, a POI may authorize a certificate holder to temporarily list an airport in A545 to comply with this regulation. The ability to use A545 as an alternative to C070 is based on the assumption that the certificate holder for whom the substitute scheduled operation is being conducted will provide all of the necessary ground station facilities, as well as passenger and aircraft service and support. When using A545, the certificate holder conducting the substitute scheduled operation is not required to establish its own ground stations. However, the certificate holder conducting the substitute operation is responsible to ensure all aircraft maintenance and performance requirements and limitations are met. List all airports for use in the substitute scheduled operation in Table 1 of A545. Include the origin and destination airports and any alternate or refueling airports necessary to conduct the substitute operation. Any airports already listed in the C070 issued to the certificate holder conducting the substitute operation, do not need to be listed in A545. When listing the origin and destination airports in A545, designate them as "Regular" airports by selecting "Yes" in "Regular Airport" field of A545. Airports not designated as "Regular" are considered interchangeable for use as provisional, refueling, and alternate airports while conducting the substitute scheduled operation.

E. Conditions and Limitations of A545. OpSpec A545 contains the following conditions and limitations. POIs may not issue A545 unless the certificate holder is able to meet all of the requirements of the OpSpec.

1) The certificate holder must have authority to conduct domestic or flag operations, as appropriate, listed in A001 of its operations specifications.

2) The certificate holder must comply with all regulations applicable to domestic or flag operations, as applicable, when conducting the substitute scheduled operation.

3) The airports listed in Table 1 of A545 are in addition to the regular, provisional refueling, and alternate airports listed in the certificate holder's C070 and are for use in the temporary substitute operation only.

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a) All origin and destination airports must be listed and designated as regular airports in Table 1 of A545.

b) Any airports for use as provisional, refueling, or alternate airports that are not listed in the certificate holder's C070 must be listed in Table 1 of A545.

c) All airports not designated as regular airports are considered to be interchangeable as provisional, refueling, and alternate airports and satisfy the requirements of § 119.49(a)(4)(ii).

4) Airports located in the United States, the District of Columbia, or any territory or possession of the United States must meet the requirements of § 121.590. Airports located outside of the United States, the District of Columbia, or any territory or possession of the United States, must meet requirements equivalent to those contained in § 121.590.

5) The certificate holder must ensure compliance with § 121.549(a) and provide the pilot in command with the appropriate aeronautical charts to conduct the substitute operation.

6) Prior to conducting the substitute operation, the certificate holder must ensure the following:

a) All station facilities are available to sustain adequate ground handling for arrival and departure of the aircraft involved in the substitute operation.

b) Competent personnel, adequate facilities, and adequate equipment (including spare parts, supplies and materials) are available for the proper servicing, maintenance, and preventive maintenance of aircraft and auxiliary equipment.

7) The substitute scheduled operation is limited to 5 consecutive calendar-days.

8) The A545 authorization expires upon conclusion of the substitute scheduled operation, or at the end of the fifth calendar-day from the start date of the operation, whichever is less.

9) Substitute scheduled operations using the regular airports listed in Table 1 of A545 are not permitted more than once in 30 calendar-days.

F. Recency of Operation in Accordance with § 119.63. If a certificate holder has not conducted the kind of scheduled operation (domestic or flag) within the preceding 30 consecutive calendar-days before conducting a substitute scheduled operation, the certificate holder must provide the POI with prior notification at least 5 consecutive calendar-days before commencing the substitute scheduled operation.

1) A POI may accept a certificate holder's request for A545 as prior notification, provided it is made at least 5 consecutive calendar-days before the certificate holder intends to conduct the operations.

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2) The certificate holder must make itself available and accessible during the 5 consecutive calendar-day period preceding the operation in the event that the POI decides to conduct a full inspection reexamination to determine whether the certificate holder remains properly and adequately equipped to conduct a safe operation.

G. Archive A545 at the Conclusion of the Operation. POIs will archive A545 at the conclusion of the substitute operation authorized therein, or at the end of 5 consecutive calendar-days, whichever is less.

OPSPEC A570—ONE YEAR EXTENSION OF COMPLIANCE TIMES IN SECTIONS 121.1117(E) AND 129.117.

A. Applicability.

1) Except as provided in paragraph C below, OpSpec A570 can only be issued to part 121 certificate holders or part 129 foreign air carriers/foreign persons with U.S.-registered airplanes who notified their PI or CHDO of their intention to use the relief specified in §§ 121.1117(k) or 129.117(k) before March 29, 2009 and who then applied for OpSpec A570 before June 24, 2009. OpSpec A570 is time-limited and will expire on December 26, 2018.

2) OpSpec A570 applies to transport category turbine-powered airplanes with a TC issued after January 1, 1958, that, as a result of original type certification or later increase in capacity have a maximum TC'd passenger capacity of 30 or more, or a maximum payload capacity of 7,500 pounds or more. This authorization does not apply to the airplanes listed in §§ 121.1117(m) and 129.117(k). Specifically, it applies to the airplanes listed in Table 3-23A.

Table 3-23A. Airplanes Which Require Ground Air Conditioning Systems

Boeing	Airbus
737 series	A318, A319, A320, A321 series
747 series	A300, A310 series
757 series	A330, A340 series
767 series	
777 series	

3) OpSpec A570 is used to extend the compliance dates in §§ 121.1117(e) and 129.117(e) by 1 year. In order to be eligible for the extension, a certificate holder or foreign air carrier/ person must have notified their PI or CHDO before March 29, 2009, of its intention to use ground air conditioning systems on its applicable airplanes in accordance with §§ 121.1117(k)(2) and (3) and 129.117(k)(2) and (3), and the certificate holder or foreign air carrier/person must have applied for OpSpec A570 by June 24, 2009. With the issuance of this OpSpec, the compliance date specified in §§ 121.1117(e)(1) and 129.117(e)(1) is extended to December 26, 2015 and the final compliance date is extended to December 26, 2018.

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B. Issuing OpSpec A570. OpSpec A570 is the joint responsibility of the POI and the PMI. Before issuing OpSpec A570. The office manager of all affected CHDOs, CMOs, IFOs, and IFUs should bring this guidance to the attention of the principal inspectors of any operator who has applied for this OpSpec and ensure that it is properly issued.

1) The PMI must ensure that the certificate holder's manual required by § 121.133 (for part 121) or maintenance program (for part 129) includes a listing, by N-registration number and fleet type, of those airplanes in the certificate holder's fleet that ground conditioned air systems applies to. That listing should be identical to the operator's Flammability Reduction Means (FRM)/Ignition Mitigation Means (IMM) retrofit listing that is provided to the CHDO. As airplanes are retrofitted they should be removed from the list.

2) The POI must ensure that the certificate holder's manual required by § 121.133 (for part 121) or equivalent manual for part 129 includes a requirement for the airplanes in this listing to use ground air conditioning systems for actual gate times of more than 30 minutes, when available at the gate and operational, whenever the ambient temperature exceeds 60 degrees Fahrenheit.

3) The office manager will determine which principal inspector will sign OpSpec A570 and ensure that it is issued.

C. Certificate Holders Certificated After December 26, 2008. A certificate holder or foreign air carrier/person for which an operating certificate is issued after December 26, 2008, and that has notified their PI or CHDO of its intention to use ground air conditioning systems on its applicable airplanes (see Table 3-23A above), the compliance date specified in § 121.1117(e) may be extended by one year, provided that the certificate holder meets the requirements of §§ 121.1117(k)(2) or 129.117(k)(2) when its initial OpSpecs are issued and, thereafter, uses ground air conditioning systems as described in § 129.117(k)(2) on each airplane subject to the extension. OpSpec A570 must be approved by the PMI, using the guidance above, concurrent with the initial OpSpecs.

TEMPLATE A999—AIR OPERATOR CERTIFICATE (AOC) IN THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) FORMAT.

A. Annex 6 Requirements. Annex 6 to the Chicago Convention requires air operators to carry onboard their aircraft a standardized, certified true copy of their AOCs when operating internationally. See the following ICAO Web site for more information: http://www.icao.int/fsix/_Library/Annex%206-Part%20I%20-%20AOC%20Template%20en.pdf . Template A999 is applicable to part 121 and 135 air carriers.

B. Federal Aviation Administration (FAA) Role. To enable certificate holders to fulfill this ICAO requirement, the FAA made an ICAO standardized AOC available as Template A999 in the Web-based Operations Safety System (WebOPSS). (See Figure 2-9A in Volume 2, Chapter 1, Section 4 for a sample of Template A999.) Much of the data contained in the AOC will be preloaded from WebOPSS. The principal operations inspector (POI) or the certificate holder must enter some of the data. This standardized ICAO AOC is in addition to the FAA

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Operating Certificate or Air Carrier Certificate. For compliance with Annex 6, certificate holders must carry this ICAO AOC onboard their aircraft when operating internationally.

C. Specific Guidance for Issuing Template A999. For specific guidance on issuing Template A999, see Volume 2, Chapter 1, Section 4, Preparation of Federal Aviation Administration Operating Certificates, paragraph 2-74.

RESERVED. Paragraphs 3-738 through 3-815.

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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 5 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations

3-871 GENERAL. Part C is issued to operators who conduct Title 14 of the Code of Federal Regulations (14 CFR) part 91, 91 subpart K (part 91K), 121, 125 (including 125 Letter of Deviation Authority (LODA) holders), or 135 operations with fixed-wing airplanes. It is not issued to part 135 operators who only conduct helicopter operations. Instrument flight rules (IFR) helicopter operators are issued Part H. Part C is not usually issued to part 135 on-demand operators who are restricted to visual flight rules (VFR)-only operations. In rare situations, operations specification (OpSpec) C070 is issued to part 135 VFR-only operators who are authorized to conduct commuter operations. However, for those who operate outside the United States, a letter of authorization (LOA) may be issued to eligible part 91 operators if requested.

NOTE: All 300-series and nonstandard 500-series OpSpecs/management specifications (MSpecs)/training specifications (TSpecs)/letters of authorization (LOA) (Parts A, B, C, D, E, and H) require approval by the appropriate headquarters (HQ) policy division. Title 14 CFR parts 61, 91, 91K, 125 (including the 125 LODA holders), 133, 137, and 141 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Title 14 CFR parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). Title 14 CFR parts 121, 135, and 145 repair station and all airworthiness nonstandard requests must be approved by the Aircraft Maintenance Division (AFS-300). All Weather Operations (AWO) relating to instrument procedures must be approved by the Flight Technologies and Procedures Division (AFS-400) and AFS-200 or AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from the International Programs and Policy Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec or LOA through the use of nonstandard text entered in the nonstandard text block (sometimes referred to as "Text 99") must also be approved by the appropriate HQ policy division. For detailed guidance on the process for obtaining HQ approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

OPSPEC/MANAGEMENT SPECIFICATION (MSPEC)/LETTER OF AUTHORIZATION (LOA) C048—ENHANCED FLIGHT VISION SYSTEM (EFVS) USE ON STRAIGHT-IN INSTRUMENT APPROACH PROCEDURES OTHER THAN CATEGORY II OR CATEGORY III.

A. Authorization. The C048 authorization is optional for certificate holders/operators/program managers conducting airplane operations under 14 CFR parts 91

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subpart K (part 91K), 121, 125 (including the Letter of Deviation Authority (LODA) 125 operators), and 135. C048 authorizes approach to straight-in landing operations below Decision Altitude (DA) or minimum descent altitude (MDA) using a certified enhanced flight vision system (EFVS). C048 is applicable to certificate holders/operators/program managers conducting straight-in instrument approach procedures (IAP) other than Category II Approach (CAT II) or Category III Approach (CAT III), as follows:

1) OpSpec C048 is required to be issued to air carriers conducting operations under parts 121, 135, and 121/135 split certificates using the provisions specified in C048.

2) OpSpec C048 is required to be issued to certificated operators that operate under part 125 using the provisions specified in C048.

3) LOA C048 is required to be issued to operators conducting operations under part 125 that are issued a deviation from the certificate and OpSpec requirements of part 125 (125M) and who will use the provisions specified in C048.

4) MSpec MC048 is required to be issued to those program managers conducting operations under part 91K who will use the provisions specified in C048.

5) An LOA is not required to be issued to part 91 operators (except for part 91K operators who must be issued an MSpec). Part 91 operators are authorized by the regulations to conduct EFVS operations without being issued an LOA.

B. Regulations. Part 91, § 91.175(l) and (m) authorize an EFVS to be used to descend below DA or MDA on straight-in IAPs, other than CAT II or CAT III. These regulations require that the EFVS have a Federal Aviation Administration (FAA) type design approval (type certificate (TC) or Supplemental Type Certificate (STC)), or for foreign-registered aircraft, that the EFVS complies with all of the EFVS requirements of the U.S. regulations. An EFVS uses imaging sensor technologies to provide a real-time enhanced image of the forward external visual scene to the pilot. An EFVS is used by the pilot to determine that the enhanced flight visibility is not less than the visibility prescribed in the IAP to be flown and that the required visual references for descending below DA or MDA down to 100 feet above the touchdown zone elevation (TDZE) are distinctly visible and identifiable using the sensor image when the runway environment is not visible using the pilot's natural vision. EFVS also helps to verify proper runway alignment at night and in low visibility conditions.

NOTE: The authorization associated with this OpSpec, MSpec, or LOA is in keeping with the intent of § 91.175(l) and (m) and does not authorize EFVS to be used to satisfy the § 91.175(e)(2) requirement that an identifiable part of the airport be distinctly visible to the pilot during a circling maneuver at or above MDA, or while descending below MDA. EFVS is permitted to be used to identify the required visual references in order to descend below DA or MDA on straight in IAPs only. An instrument approach with a circle-to-land maneuver is not a straight-in IAP and does not have straight-in minima. While the regulations do not prohibit EFVS from being used during any phase of flight, they do prohibit it from being used for operational credit on anything but a straight-in IAP. EFVS

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may be used during a circle-to-land maneuver provided the visual references required at or above MDA and throughout the circling maneuver are distinctly visible using natural vision. Use of EFVS during a circling maneuver may enable a pilot to see much more of the external scene at night and in low visibility conditions than would be possible using natural vision, thereby enhancing situational awareness (SA).

C. Descending Below DA or MDA. In order to descend below DA or MDA, the following visual references for the runway of intended landing must be distinctly visible and identifiable to the pilot using the EFVS:

1) The Approach Light System (ALS) (if installed); or

2) The following visual references in both subparagraphs C2)a) and b) below:

a) The runway threshold, identified by at least one of the following:

1. The beginning of the runway landing surface,

2. The threshold lights, or

3. The runway end identification lights (REIL).

b) The touchdown zone (TDZ), identified by at least one of the following:

1. The runway TDZ landing surface,

2. The TDZ lights,

3. The TDZ markings, or

4. The runway lights.

3) To descend below 100 feet above the TDZE of the runway of intended landing, the pilot must be able to see the visual references required by § 91.175(l)(4) with his or her natural vision without relying on the EFVS. That is, the enhanced flight visibility observed by use of an EFVS is no longer applicable. At this point, the flight visibility only has to be sufficient for the pilot to distinctly see and identify the lights or markings of the threshold or the lights or markings of the TDZ using natural vision before continuing to a landing.

D. Required Visual References. The required visual references in § 91.175(l) using EFVS to descend below DA or MDA are different from those required by § 91.175(c) using natural vision. Table 3-15A, Required Visual References, Part 91, § 91.175(c) and (l), provides a comparison of visual reference requirements for both natural vision and EFVS. Generally, the visual reference requirements for EFVS are more stringent than those for natural vision. For example, § 91.175(c) allows descent below DA or MDA using natural vision when only one of the visual references listed can be seen. For EFVS, § 91.175(l) requires that a pilot either see the ALS or at least one visual reference listed for the threshold environment and one visual

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reference listed for the TDZ environment. When natural vision is used, the Visual Approach Slope Indicator (VASI) is permitted to be used as a required visual reference for descent below DA or MDA. Under § 91.175(l) using EFVS, however, the VASI cannot be used as a visual reference for descent below DA or MDA using EFVS because the EFVS display is monochromatic. For descent below 100 feet above TDZE using natural vision, § 91.175(c)(3) permits the approach lights to be used as a reference only if the red terminating bars or the red side row bars are visible and identifiable. For EFVS operations below 100 feet above TDZE, the approach lights with red side row bars are not permitted to be used as a visual reference, even though the pilot is required to rely only on natural vision to descend below 100 feet above TDZE. The only visual references permitted to be used for EFVS operations below 100 feet above TDZE are the lights or markings of the threshold or the lights or markings of the TDZ.

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Table 3-15A. Required Visual References, Part 91, § 91.175(c) and (l)

Required Visual References Using ***Natural Vision*** **(14 CFR 91.175(c))**	**Required Visual References Using an** ***Enhanced Flight Vision System*** **(14 CFR 91.175(l))**
For operation below DA or MDA: At least **one** of the following visual references: Approach light system Threshold Threshold markings Threshold lights Runway end identifier lights Visual approach slope indicator Touchdown zone Touchdown zone markings Touchdown zone lights Runway Runway markings Runway lights	**For operation below DA or MDA:** The following references, using the EFVS: Approach light system ***OR*** BOTH paragraphs A and B -- A. The runway threshold, identified by at least one of the following – • beginning of the runway landing surface, • threshold lights, or • runway end identifier lights **AND** B. The touchdown zone, identified by at least one of the following – • runway touchdown zone landing surface, • touchdown zone lights, • touchdown zone markings, or • runway lights.
Descent below 100 feet height above TDZE: At least **one** of the following visual references: Approach light system, as long as the red terminating bars or red side row bars are also distinctly visible and identifiable Threshold Threshold markings Threshold lights Runway end identifier lights Visual approach slope indicator Touchdown zone Touchdown zone markings Touchdown zone lights Runway Runway markings Runway lights	**Descent below 100 feet height above TDZE:** The following references, using natural vision: The lights or markings of the threshold ***OR*** The lights or markings of the touchdown zone

E. Conditions of Approval. Before issuing C048 based on aircraft equipment and operation, inspectors shall ensure that each certificate holder/operator/program manager meets the following conditions:

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1) The authorized aircraft must be equipped with an EFVS certified for conducting operations under § 91.175(l) and (m) and must either have an FAA type design approval (TC or STC) or, for a foreign-registered aircraft, the EFVS must comply with all of the EFVS requirements of the U.S. regulations. Field approvals for EFVS installations are not authorized. An EFVS is an installed airborne system and must include:

a) A head-up display (HUD) or equivalent display.

1. EFVS sensor imagery and aircraft flight symbology must be presented so that they are clearly visible to the Pilot Flying (PF) in his normal position, line of vision, and looking forward along the flightpath.

2. The EFVS display must be conformal. That is, the sensor imagery, aircraft flight symbology, and other cues that are referenced to the imagery and external scene must be aligned with and scaled to the external view.

b) Sensors that provide a real-time image of the forward external scene topography.

c) Computers and power supplies.

d) Indications and controls.

e) Aircraft flight symbology that includes at least the following:

1. Airspeed,

2. Vertical Speed (VS),

3. Aircraft attitude,

4. Heading,

5. Altitude,

6. Command guidance as appropriate for the approach to be flown,

7. Path deviation indications,

8. Flight Path Vector (FPV) cue, and

9. Flight Path Angle (FPA) reference cue.

NOTE: The FPA reference cue must be displayed with the pitch scale and must be selectable by the pilot for the appropriate approach descent angle.

NOTE: An EFVS must not be confused with an Enhanced Vision System (EVS). An EVS is an electronic means to provide the flightcrew with a sensor-derived or enhanced image of the external scene (e.g., millimeter wave radar, Forward

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Looking Infrared (FLIR)). Unlike an EFVS, an EVS does not necessarily provide the additional flight information/symbology required by § 91.175(m). An EVS might not use an HUD and might not be able to present the image and flight symbology in the same scale and alignment as the outside view. This system can provide SA to the pilot, but does not meet the regulatory requirements of § 91.175(m). As such, an EVS cannot be used as a means to determine enhanced flight visibility and descend below the DA or MDA.

2) The pilot can continue the approach below DA or MDA to 100 feet above the TDZE if he or she determines that the enhanced flight visibility observed by the use of a certified EFVS is not less than the minimum visibility prescribed in the straight-in IAP being flown, and the pilot acquires the required visual references prescribed in § 91.175(l)(3). The pilot uses the EFVS to visually acquire the runway environment, confirm lateral alignment, maneuver to the extended runway centerline (RCL), and continue a normal descent from the DA or MDA to 100 feet above the TDZ.

a) A pilot may continue the approach below 100 feet above the TDZE as long as the flight visibility, using natural vision, is sufficient for the required visual references to be seen. In addition, the aircraft must be continuously in a position from which a descent to landing can be made on the intended runway, at a normal rate of descent using normal maneuvers, and for part 121 and 135 certificate holders, at a descent rate that allows touchdown to occur within the TDZ.

b) It should be noted that the rule does not require the EFVS to be turned off or the sensor image to be removed from the HUD in order to continue to a landing without reliance on the EFVS sensor image. In keeping with the requirements of the regulations, however, the decision to continue descending below 100 feet above the TDZE must be based on seeing the visual references required by the rule through the HUD by means of natural vision. An operator may not continue to descend beyond this point by relying on the sensor image displayed on the HUD.

c) EFVS equipage may vary. Some aircraft may be equipped with a single EFVS display. Others may have an EFVS display and a separate repeater display located in or very near the primary field of view (FOV) of the non-flying pilot. Still others may be equipped with dual EFVS displays. The regulations do not require a repeater display or a separate EFVS for the non-flying pilot, but neither do they preclude it. Certificate holders, operators, or program managers should develop procedures for EFVS operations appropriate to the equipment installed and the operation to be conducted. In establishing these procedures, both normal and abnormal or failure modes must be addressed for the various phases of the approach (e.g., before final approach fix (FAF), FAF to DA or MDA, and after reaching DA or MDA).

d) Procedures should support appropriate levels of crew coordination with special emphasis on the transition to and reliance on natural vision. Each EFVS has a specified limit to the FOV. An offset final approach or crosswinds may affect use of the EFVS as well as when the decision is made to rely on natural vision for the primary reference. Also, specific pilot/crew decisionmaking and coordination must be addressed in the segment from FAF to DA or MDA (or point that a decision to rely on natural vision is made) and the EFVS segment

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(from DA or MDA down to 100 feet height above TDZE). The transition from enhanced vision to natural vision for landing is an especially important segment. Certificate holders, operators, or program managers should describe how common SA will be achieved—either procedurally when a single EFVS is used or through a combination of procedures and equipment when a repeater display or dual EFVSs are used.

3) Training requirements with respect to aircraft type (make, model, and series (M/M/S)) and EFVS model/version shall be accomplished in accordance with the Flight Standardization Board (FSB) report for the aircraft and EFVS equipment to be used. If an FSB report was not issued for a specific aircraft type and EFVS model/version, initial EFVS training shall be accomplished in the aircraft type and EFVS model/version to be used, and additional training shall be accomplished when a different EFVS model/version is used on the same aircraft type or when the same EFVS model/version is used on a different make aircraft. It should be noted that the sensor image, fidelity, characteristics, and symbology may differ, necessitating additional training. The flightcrew must be trained in the use of EFVS and demonstrate proficiency conducting straight-in IAPs, other than CAT II or CAT III (e.g., Category I Approach (CAT I) instrument landing system (ILS), nonprecision, approach procedures with vertical guidance (APV), etc.). Part 91K, 121, and 135 operators must have approved training programs. Part 125 operators are not required to have an approved training program. However, pilots of part 125 operators must complete an EFVS training program and must be qualified for EFVS operations by a check airman or an FAA inspector.

a) Pilots should demonstrate knowledge of the regulatory requirements of § 91.175 and part 121, § 121.651, part 125, § 125.381, or part 135, § 135.225, as appropriate, for approach to straight-in landing operations below DA or MDA using an EFVS.

b) Pilots operating an EFVS should be able to demonstrate knowledge and proficiency in the use of this equipment through training and checking as required by the type of operation. As a minimum, pilots should be knowledgeable and proficient in the following areas:

1. The specific sensor technology to include limitations that impact enhanced vision under various environmental conditions (weather, system resolution, external interference, thermal characteristics, variability and unpredictability of sensor performance, etc.).

2. EFVS operational considerations:

- Use of HUD symbology.
- Preflight and warmup requirements, as applicable.
- Controls, modes, adjustments, and alignment of the EFVS/HUD.
- Importance of the Design Eye Position (DEP) in acquiring the proper EFVS image.
- System limitations and normal and abnormal procedures, including visual anomalies such as noise, blooming, and thermal crossover.
- Use of EFVS on precision, nonprecision, and APV approaches.
- Use of caged and uncaged modes of the EFVS, if applicable, in crosswind conditions.

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3. Impact of EFVS on other aircraft systems, such as autopilot minimum use height limitations.

4. Runway lightning systems and ALS.

5. Crew briefings, callouts, and crew coordination procedures.

6. Visual references required by § 91.175(l)(3) and (4).

7. Transition from EFVS imagery to natural vision and recognition of the required visual references.

8. Obstacle clearance requirements for approach and missed approach:

- Flight planning for obstacle clearance on a missed approach (e.g., go-around or balked landing) below DA or MDA;
- Use and significance of a published vertical descent angle (VDA) on IAPs;
- Vertical Path (VPATH), VASI, precision approach path indicator (PAPI), published visual descent points (VDP), calculated VDPs; and
- Use of the FPA reference cue and FPV cue.

9. Missed approach requirements include: loss of required equipment, enhanced flight visibility, or required visual references for various phases of the approach (e.g., FAF to DA or MDA, and after passing DA or MDA).

c) The flightcrew shall not conduct any operations authorized by this paragraph unless they are trained and qualified in the equipment and special procedures to be used. Each pilot in command (PIC) and second in command (SIC) must successfully complete an approved EFVS training program for parts 91K, 121, and 135 operators or a training program for part 125 operators, and must be certified as being qualified for EFVS operations by one of the certificate holder/operator/program manager's check airmen who is properly qualified for EFVS operations or an FAA inspector.

4) The Aircraft Flight Manual (AFM) must contain EFVS provisions appropriate to the EFVS operation authorized.

5) The minimum equipment list (MEL) should include EFVS provisions, if MEL relief for EFVS is sought.

6) Part 121 and 135 operators must incorporate into their maintenance program the EFVS manufacturer's requirements for maintenance and instructions for continued airworthiness. Part 91K and 125 operators must maintain the installed EFVS equipment in accordance with the aircraft manufacturer's or the equipment manufacturer's maintenance instructions.

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OPSPEC/MSPEC C049—DESTINATION AIRPORT ANALYSIS.

A. General. OpSpec C049 is an optional authorization for 14 CFR part 135 certificate holders that have been issued OpSpec A057 as an eligible on-demand operator for reducing effective runway length requirements for turbine-engine powered, large transport-category airplanes that must be met before a flight's release, provided certain requirements are met by the operator. MSpec C049 is an optional authorization for 14 CFR part 91 subpart K (part 91K) fractional ownership operations program managers to reduce effective runway length requirements for turbine-engine powered, large transport-category airplanes that must be met before a flight's release, provided the program manager meets certain requirements.

B. Destination Airport Analysis. FAA regulations governing operations under parts 91K and 135 provide for reducing effective runway length requirements for turbine-engine powered, large transport-category airplanes that must be met before a flight's release, provided the operator meets certain requirements. For destination airports, normal landing distance requirements for part 91K and 135 operations are 60 percent of the available runway length. For alternate airport landing distance requirements, part 91K remains at 60 percent, while part 135 allows for 70 percent of the effective runway length. If an operator desires to reduce such requirements below 60 percent of the available runway length, that operator must meet regulatory requirements in two areas:

1) Part 135 eligible on-demand operator (OpSpec A057 must be issued) or part 91K program experience; and

2) FAA-approved Destination Airport Analysis Program (DAAP). The DAAP must address specific regulatory requirements and be approved for use through that operator's MSpecs or OpSpecs, as applicable.

C. Experience Requirements. An eligible on-demand operator is defined in part 135, § 135.4. Fractional ownership programs must meet the same requirements and are identified in part 91, §§ 91.1053 and 91.1055. The requirements include an on-demand or fractional ownership program operation that meets the following requirements:

1) Two-Pilot Crew. The flightcrew must consist of at least two qualified pilots employed or contracted by the certificate holder.

2) Flightcrew Experience. The crewmembers must have met the applicable requirements of 14 CFR part 61 and have the following experience and ratings:

a) Total flight time for all pilots:

- Pilot in command (PIC)—A minimum of 1,500 hours.
- Second in command (SIC)—A minimum of 500 hours.

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b) For multiengine, turbine-powered fixed-wing, and powered-lift aircraft, the following FAA certification and ratings requirements:

- PIC—Airline transport pilot (ATP) and applicable type ratings.
- SIC—Commercial pilot and instrument ratings.

c) For all other aircraft, the following FAA certification and rating requirements:

- PIC—Commercial pilot and instrument ratings.
- SIC—Commercial pilot and instrument ratings.

3) Pilot Operating Limitations. If the SIC of a fixed-wing aircraft has fewer than 100 hours of flight time as SIC flying in the aircraft make and model, a type rating is required in the type of aircraft being flown, and the PIC is not an appropriately qualified check pilot, the PIC will make all takeoffs and landings in any of the following situations:

a) Landings at the destination airport when a Destination Airport Analysis is required by part 135, § 135.385(f); and

b) In any of the following conditions:

- The prevailing visibility for the airport is at or below three-quarters of a mile;
- The Runway Visual Range (RVR) for the runway to be used is at or below 4,000 feet;
- The runway to be used has water, snow, slush, ice, or similar contamination that may adversely affect aircraft performance;
- The braking action on the runway to be used is reported to be less than “good”;
- The crosswind component for the runway to be used is in excess of 15 knots;
- Wind shear is reported in the vicinity of the airport; and
- Any other condition in which the PIC determines it to be prudent to exercise the PIC’s authority.

4) Crew Pairing. Either the PIC or the SIC must have at least 75 hours of flight time in that aircraft make or model and, if a type rating is required for that type aircraft, either as PIC or SIC.

D. Deviations. The Administrator may authorize deviations from the total flight time requirements of § 91.1053(a)(1) or crew pairing requirements of § 91.1055(b) if the FAA office that issued the OpSpecs or MSpecs, as applicable, finds that the crewmember has comparable experience and can effectively perform the functions associated with the position in accordance with the requirements of this chapter. The Administrator may, at any time, terminate any grant of deviation authority issued under this provision. Grants of deviation may be authorized after consideration of the size and scope of the operation, the qualifications of the intended operating pilots, and the following circumstances:

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1) A newly authorized certificate holder does not employ any pilots who meet the minimum requirements of § 91.1055(b).

2) An existing certificate holder adds to its fleet a new category and class aircraft not used before in its operation.

3) An existing certificate holder establishes a new base to which it assigns pilots who will be required to become qualified on the aircraft operated from that base.

E. DAAP Requirements. DAAP requirements are found in §§ 91.1025 and 135.23. Specifically, if required by § 91.1037(c) or § 135.385, as applicable, the Destination Airport Analysis establishing runway safety margins must include the following elements, supported by aircraft performance data supplied by the aircraft manufacturer for the appropriate runway conditions at the airport(s) to be used, if a reduction below 60 percent of the available runway length is planned:

1) Pilot Qualifications and Experience. The operator is responsible for including all applicable regulatory requirements to establish a pilot's eligibility to reduce effective runway planning requirements below 60 percent of the available runway length. Experience requirements address pilots with less than 100 hours of flight time in type (high minimum), total flight time, and crew pairing limitations (less than 75 hours in type).

2) Aircraft Performance Data to Include Normal, Abnormal, and Emergency Procedures as Supplied by the Aircraft Manufacturer. Landing distance calculations should be completed using FAA-approved procedures and data. Consideration must be given to abnormal and emergency procedures, as some of these procedures may increase approach speeds and consequently, landing distance requirements. Additionally, planned takeoff weight for the departure from that airport should be evaluated before operating into that airport.

3) Airport Facilities and Topography. Consider what services are available at the airport. Services such as communications, maintenance, and fueling may have an impact on operations to and from that airport. Terrain features may figure prominently in or near a particular airport. High, fast-rising terrain may require special approach or DPs, which may impact performance requirements. For example, an aircraft certification criterion uses a 3.5 degree glideslope angle in computing landing distance data. glideslope angles of 2.5 to 3 degrees are common and have the effect of lengthening actual landing distance. Airports that sit on top of hilly terrain or downwind of mountainous terrain may occasionally experience conditions that include gusty conditions or winds shifting from a headwind to a tailwind. Such conditions are an important consideration during the landing maneuver, particularly during the flare, and increase landing distance requirements.

4) Runway Conditions (including contamination). Runway features, such as slope and surface composition, can cause the actual landing distance to be longer than the calculated landing distance. Wet or slippery runways may preclude reductions from being taken and, in fact, require 115 percent of the distance derived from calculations, whether a reduction was used or not. This distance is calculated by increasing the distance required under dry conditions by an additional 15 percent (i.e., if Aircraft Flight Manual (AFM) data show the actual landing distance

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will be 2,000 feet, the effective runway length required is 3,334 feet using 60 percent in this example; if the runway is expected to be wet or slippery upon arrival, the effective runway length required is 3,834 feet). Braking action always impacts the landing distance required as it deteriorates. Always consider the most current braking action report and the likelihood of an update before the flight's arrival at a particular airport.

5) Airport or Area Weather Reporting. Some airports may not have current weather reports and forecasts available for flight planning. Others may have automated observations for operational use. Still others may depend on a nearby airport's forecast for operations. Area forecasts are also very valuable in evaluating weather conditions for a particular operation. Comparing forecasted conditions to current conditions will lend insight to changes taking place as weather systems move and forecasts are updated. Longer flight segments may lean more heavily on the forecast for the estimated time of arrival (ETA), as current conditions may change significantly as weather systems move. For example, if a flight is planned for 5 hours en route, the current conditions may not provide as much insight as a forecast for the arrival time if a cold front is expected to pass through the area while the flight is en route.

6) Appropriate Additional Runway Safety Margins, If Required. Displaced thresholds, airport construction, and temporary obstacles (such as cranes and drawbridges) may impact runway length available for landing. Notices to Airmen (NOTAM) must be consulted before conducting a flight and are a good source of information on items such as these.

7) Airplane Inoperative Equipment. Thrust reversers, on airplanes so equipped, provide some effect of reducing landing rollout distance. However, they are not considered in landing distance performance requirements and data provided by airplane manufacturers during certification. Rather, they provide an added margin of safety when used. If thrust reversers are inoperable or not installed, that additional safety margin does not exist. Also, their effectiveness is directly related to many factors, including pilot technique, reverser deployment rates, engine speeds, and environmental conditions (e.g., wet or contaminated runways in conjunction with crosswinds). Their actual effectiveness varies greatly. Other airplane systems that directly impact landing distance requirements include antiskid and ground spoilers (if installed), brake and tire condition, and landing flap selection, to name a few.

8) Environmental Conditions. Many environmental conditions directly and indirectly affect actual landing distance requirements. Frontal passage usually causes winds to shift, sometimes causing a tailwind component. Tailwinds generally have a significantly greater impact on landing distance than headwinds. Thunderstorms in the vicinity of airports can introduce wind gusts from different directions, including wind shear, to varying degrees that are difficult to predict in advance or during the actual landing maneuver itself. Density and pressure altitudes also directly impact landing distance requirements. Landing distance tables may take these factors into account. However, variations from planned conditions and actual conditions at time of landing can vary and impact actual landing distance requirements.
Stronger-than-forecasted tailwinds en route can cause the airplane to weigh more than projected, causing the actual landing distance to be longer than planned. If icing conditions were encountered while en route and temperatures above freezing are not reached before landing, any ice remaining behind removal devices or on areas that are not protected add additional weight and drag to the airplane, which in turn requires higher airspeeds and longer landing distances.

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9) Other Criteria That Affect Aircraft Performance. Many other variables affect landing distance. Approach speed, flap configuration, airplane weight, tire and brake condition, airplane equipment, and environmental conditions, to name a few, all directly impact required landing distance. With these and many other factors considered, it is the pilot who must apply them through the use of procedures and technique, the latter being highly variable. While specific additives are provided by manufacturer's landing data, a pilot usually applies techniques acquired through experience in dealing with similar circumstances. Pilots may opt for an especially smooth landing on longer runways by "floating" in ground effect, before touchdown. While possibly yielding a smooth landing, this technique will add to the landing distance requirement, as landing data provided by manufacturer's data through the certification process assumes a touchdown rate of descent of 8 feet per second. The following tables provide additional insight into factors that affect landing distance requirements and policies and procedures addressing them should be included in the operator's FAA-approved DAAP.

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Table 3-16. Reduction of Landing Distance Planning Requirements

GENERAL OPERATIONAL CONSIDERATIONS

Certification Criteria	Operational Consideration	Effect on Safety Margin
3.5 degree glideslope angle	2.5 to 3 degrees typical.	Actual landing distance will be longer than calculated landing distance.
8 ft/s touchdown rate of descent	2 to 4 ft/s typical.	Actual landing distance will be longer than calculated landing distance.
Assumes all approach speed additives bled off before reaching the 50 ft height	5 to 10 knots exceedances not uncommon.	Actual landing distance will be longer than calculated landing distance.
	Longer flare distance (“float”).	Actual landing distance will be longer than calculated landing distance.
	Less-than-full braking effort.	Actual landing distance will be longer than calculated landing distance.
	Delays in obtaining full braking configuration.	Actual landing distance will be longer than calculated landing distance.
	Higher temperatures not accounted for (temperature accountability not required).	Actual landing distance will be longer than calculated landing distance.
	Downhill runway slope not accounted for (runway slope accountability not required).	Actual landing distance will be longer than calculated landing distance.
	Icy, slippery, or contaminated runway surface.	Actual landing distance will be longer than calculated landing distance.
	Airplane heavier at time of landing than predicted at time of dispatch.	Actual landing distance will be longer than calculated landing distance.
	Airplane higher than 50 ft over the threshold.	Actual landing distance will be longer than calculated landing distance.
	Airport pressure altitude higher than predicted at time of dispatch.	Actual landing distance will be longer than calculated landing distance.

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OTHER VARIABLE CONSIDERATIONS

Steady-State Variables	Non Steady-State Variables	Actual Operations vs. Flight Test	Actual vs. Forecast Conditions
Runway slope	Wind gusts/turbulence	Flare technique	Runway or direction (affecting slope)
Temperature	Flightpath deviations	Time to activate deceleration devices	Airplane weight
Runway surface condition (dry, wet, icy, texture)		Flightpath angle	Approach speed
Brake/tire condition		Rate of descent at touch down	Environmental conditions (for example, temperature, wind, pressure altitude)
Speed additives		Approach/touchdown speed	Engine failure
Crosswinds		Height at threshold	
		Speed control	

F. Operator Responsibility. Operators are responsible for preparing their DAAP if they desire to reduce landing distance planning requirements below 60 percent of the effective runway length. Operators must ensure that their policies and procedures reflect at least minimum regulatory requirements and adequate policies and procedures before submitting their program to the FAA for approval.

G. Checklist. The checklist is available electronically in the guidance subsystem of the automated Operations Safety System (OPSS) in association with OpSpec/MSpec C049. The checklist should be used to ensure that the operator and its DAAP meet minimum regulatory requirements. This checklist should be completed by the operator and be provided to the FAA office having approval authority, along with the DAAP and request for approval and issuance of OpSpec C049 or MSpec C049, as applicable.

OPSPEC C050—SPECIAL PILOT IN COMMAND AIRPORT QUALIFICATIONS.

A. General. OpSpec C050 is used to authorize 14 CFR part 121 air carrier certificate holders to conduct instrument flight rules (IFR) operations into special airports requiring special airport qualification in accordance with the provisions and limitations of the OpSpec and part 121, § 121.445. For detailed information refer to Volume 4, Chapter 3, Section 5, paragraph 4-602.

B. Operations into Special Pilot in Command (PIC) Qualification Airports. Air carriers conducting domestic, flag, and supplemental operations require the PIC to be qualified

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for operations into special PIC qualification airports. These PICs must be qualified in accordance with § 121.445.

1) OpSpec C050 is used to authorize special PIC qualification airports for domestic, flag, and supplemental part 121 air carriers.

2) The list of special qualification airports can be found in the automated Operations Safety System (OPSS) guidance subsystem in association with OpSpec C050 and at http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=OPSS Guidance.

C. PIC Requirements. If both the ceiling and the visibility minimums are not satisfied as detailed in § 121.445(c), then the qualification requirements of § 121.445(b) apply. Section 121.445(b) specifies that for a pilot to serve as PIC on a flight to a special qualification airport, the PIC must have the benefit of one of the following:

1) The PIC, within the preceding 12 calendar-months, has made a takeoff and landing at that airport while serving as a pilot flightcrew member;

2) The second in command (SIC), within the preceding 12 calendar-months, has made a takeoff and landing at that airport while serving as a pilot flightcrew member; or

3) Within the preceding 12 calendar-months, the PIC has qualified by using pictorial means acceptable to the Administrator for that airport.

D. Operator Assessment of Airport Factors. The operator assesses the nature and complexity of certain factors associated with the airport (e.g., high altitude, foreign airport, specific terrain features, unique weather patterns may be present singly or in combination). This assessment determines whether the airport should be included in the air carrier's airport listing in OpSpec C067 or the provisions of OpSpec C050 apply. For instance, an airport with an approved IFR and or visual flight rules (VFR) approach/departure procedure and an unusual characteristic, such as a nearby politically sensitive international boundary or high terrain, may require designation as a special PIC qualification airport. In this case, the airport would need to be listed in OpSpec C067 and the provisions of OpSpec C050 also apply. Refer to Volume 4, Chapter 3, Section 5, paragraph 4-602, and OpSpec C067.

E. Addition and Removal From the Special Airport Qualification List. The air carriers, in conjunction with the Air Transportation Division (AFS-200), will determine any airport additions or deletions from the special airport qualification list. These changes will be made on a quarterly basis.

OPSPEC/MSPEC C051—TERMINAL INSTRUMENT PROCEDURES. C051 is issued to all airplane operators who conduct any flight operations under instrument flight rules (IFR). FAA Order 8260.31, Foreign Terminal Instrument Procedures, current edition, provides direction and guidance on acceptance of foreign Terminal Instrument Procedures (TERPS). Additional information concerning TERPS is in Volume 4, Chapter 2, Section 3. For helicopter authorization, see OpSpec H101.

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OPSPEC/MSPEC/LOA C052—STRAIGHT-IN NONPRECISION, APV, AND CATEGORY I PRECISION APPROACH AND LANDING MINIMA—ALL AIRPORTS.

A. Applicability. OpSpec/MSpec/LOA C052 is applicable to all operators conducting airplane operations under 14 CFR parts 91, 91 subpart K (part 91K), 121, 125 (including the Letter of Deviation Authority (LODA) 125 operators), and 135. C052 specifies the types of instrument approaches the operator is authorized to conduct under instrument flight rules (IFR) and prohibits the use of other types of instrument approaches, and authorizes the lowest straight-in, nonprecision approach procedures with vertical guidance (APV), and Category (CAT) I Approach precision approach and landing minima. OpSpec/MSpec/LOA C052 is applicable to operators as follows:

1) OpSpec C052 is:

- Required to be issued to operators conducting operations under part 121 or 125;
- Required to be issued to operators using turbojets in operations under part 135; and
- Optional for operators conducting operations under part 135 with all other aircraft.

2) LOA C052 is required for operators conducting operations under part 125 that are issued a deviation from the certificate and OpSpec requirements of part 125 (125M).

3) MSpec C052 is required to be issued to those program managers conducting operations under part 91K.

4) For helicopter authorization, see OpSpecs H101, H103, and H117.

5) An optional LOA template is provided to satisfy a request from foreign regulatory authorities for evidence of training and approval to fly Global Navigation Satellite System (GNSS)-based approaches. Unlike the other C052 templates, the inspector only has the option of GNSS Landing System (GLS) or area navigation (RNAV) (GNSS) approaches to lateral navigation (LNAV), LNAV/vertical navigation (VNAV), Localizer Performance with Vertical Guidance (LPV), or Localizer Performance (LP) lines of minima. As a result, this LOA is not a comprehensive list of authorized approaches for the operator, but only a subset to address foreign GNSS-based approaches. The inspector should ensure the applicant presents documentation of capability to perform these operations. Additionally, the inspector should verify evidence of training. After completing these actions, the inspector may select the appropriate lines of minima in Table 1 of the LOA. The inspector may find these resources helpful: information detailed in this section and the current edition of Advisory Circular (AC) 90-107, Guidance for Localizer Performance with Vertical Guidance and Localizer Performance without Vertical Guidance Approach Operations in the U.S. National Airspace System, paragraphs 7, 8, and 9, to determine GNSS-based approach eligibility. Finally, the inspector may also reference Aeronautical Information Manual (AIM) paragraphs 1-1-18 and 1-1-19, and FAA's Performance-Based Flight Systems Branch Web page, for more details.

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NOTE: Technical questions regarding the approaches authorized by C052 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-267-8790. Questions regarding the issuance of C052, including operational and training requirements, should be directed to the Air Transportation Division (AFS-200) at 202-267-8166, or General Aviation and Commercial Division (AFS-800) at 202-267-1100.

B. Types of Instrument Approaches Authorized. In OpSpec/MSpec/LOA C052, Table 1 specifies the types of instrument approaches the operator is authorized to conduct under IFR and prohibits the use of other types of instrument approaches. In the Web-based Operations Safety System (WebOPSS), the principal operations inspector (POI) will select the approaches that apply to the operator. Reference the AIM for a detailed description of each approach.

1) Before authorizing a type of instrument approach procedure (IAP), the POI, principal maintenance inspector (PMI), and principal avionics inspector (PAI) must ensure that the operator has revised the training and operations manuals, established that flightcrew training and checking requirements have been met, and that the equipment and systems are appropriate for the types of approaches to be authorized.

2) See Volume 4, Chapter 2, Section 1 for information on required training for various types of approaches.

3) All the approaches approved by OpSpec/MSpec/LOA C052 must be published in accordance with 14 CFR part 97 or the Foreign State Authority.

4) If the certificate holder/program manager/operator is authorized to conduct Global Positioning System (GPS) procedures as listed in Table 1 of OpSpec/MSpec/LOA C052, the aircraft and equipment must be listed in Table 1 of OpSpec/MSpec/LOA B034.

5) Required Navigation Performance (RNP) approaches.

a) RNAV (RNP) approaches are different from RNAV (GPS) approaches. Due to the equipment qualifications and the associated procedures and training for the lower minima of the RNAV (RNP) approaches, they are labeled as “special aircraft and aircrew authorization required (SAAAR).” C052 does not authorize RNP SAAAR operations. Authorization for RNAV (RNP) approaches is through nonstandard OpSpecs (300-series OpSpecs, which require FAA headquarters (HQ) approval), such as OpSpec C384. (Refer to the current edition of AC 90-101, Approval Guidance for RNP Procedures with AR.)

b) Foreign RNP-like procedures not designed to U.S. RNP SAAAR criteria are authorized with a nonstandard C358 authorization. This is a nonstandard OpSpec paragraph that requires FAA HQ approval.

6) Three groups of IAPs may be authorized in OpSpec/MSpec/LOA C052:

a) Column one specifies the Nonprecision Approaches (NPA) without vertical guidance that are authorized by OpSpec/MSpec/LOA C052. Operators must ensure the aircraft

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will not go below the minimum descent altitude (MDA) without the required visual references specified in part 91, § 91.175.

1. Operators authorized OpSpec/MSpec/LOA C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH), in conjunction with C052 may momentarily descend below the MDA when executing a missed approach.

2. The International Civil Aviation Organization (ICAO) term for an airport surveillance radar (ASR) approach is surveillance radar approach (SRA). Belgium labels these approaches as "SRE." Select "ASR/SRA/SRE" in column one to authorize these approaches.

b) Column two of OpSpec/MSpec/LOA C052 provides for the authorization of APV. These approaches provide vertical guidance, but do not meet the same standards as precision approach systems (e.g., instrument landing system (ILS) and Ground Based Augmentation System (GBAS) Landing System (GLS)). These APVs are trained using an approved method that allows descent to a published decision altitude (DA).

1. APV approaches may contain LPV minima requiring wide area augmentation system (WAAS) and LNAV/VNAV minima that may be flown with either barometric vertical navigation (baro-VNAV) or WAAS-based VNAV. These are authorized in column two of Table 1 of OpSpec/MSpec/LOA C052. See subparagraph C to determine applicable lines of minima. The AIM and the approach chart legend also have this information.

2. Aircraft accomplishing RNP approaches (RNAV (GPS) or RNAV (GNSS) are required to monitor lateral and, if approved for operational credit, vertical guidance deviations. For baro-VNAV approach operations on an RNP approach using the LNAV/VNAV minima, the current vertical deviation limits are +100/-50 feet. Aircraft qualified using the current edition of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems, deviation display requirements for navigation, may use a vertical deviation limit of ±75 feet (or a smaller value). This information must be published in the Airplane Flight Manual (AFM), a Supplemental Type Certificate (STC), or verified by the Aircraft Evaluation Group (AEG).

3. To authorize RNAV APVs, select "RNAV (GPS)" (for part 97 approaches) or "RNAV (GNSS)" (for foreign approaches) from the selectable menu for column two of Table 1 of the OpSpec/MSpec/LOA C052 template.

c) Column three of OpSpec/MSpec/LOA C052 provides for the authorization of CAT I precision IAPs from an electronic glideslope (ILS or GLS).

1. "RNAV/ILS" in column three may only be selected in C052, if the operator meets the requirements in OpSpec/MSpec/LOA C063. For example, the United Arab Emirates publishes approach plates for Dubai titled, "RNAV ILS" or "ILS RNAV." The RNAV portion of the approach constitutes an RNAV Standard Terminal Arrival Route (STAR).

2. For pilot qualifications, the initial qualification segment of the certificate holder's approved ILS precision runway monitor (PRM) training program must be successfully completed prior to conducting ILS PRM approach and landing operations. Initial training

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materials must include published ILS PRM approach chart materials, the AIM, related Notices to Airmen (NOTAM), and the latest available FAA-produced and -approved ILS PRM video titled "ILS PRM Approach for Air Carriers" that each pilot must view, and which appears on the FAA website at http://www.faa.gov/training_testing/training/prm/. Pilots trained in PRM operations under previous guidance are not required to retrain using the new version of the video. However, pilots are required to know the change in operations of Traffic Alert and Collision Avoidance System (TCAS) during PRM operations, as well as the required actions in response to a controller instruction. Testing of knowledge objectives is required as part of initial and recurrent qualification training. See subparagraph K.

Figure 3-66E. Sample OpSpec/MSpec/LOA C052 Table 1

Table 1 - Authorized Instrument Approach Procedures

Nonprecision Approaches Without Vertical Guidance	Approaches With Vertical Guidance (APV)	Precision Approach Procedures (ILS & GLS)
ASR/SRA/SRE	LDA w/glideslope	ILS
AZI	RNAV (GPS)	ILS/PRM
AZI/DME	RNAV (GNSS)	PAR
AZI/DME Back Course	LDA PRM	ILS/DME
GPS	LDA PRM DME	RNAV/ILS
LDA	SDF w/glideslope	GLS
LDA/DME	LOC BC w/glideslope	
LOC	RNAV (GPS) PRM	
LOC BC		
LOC/DME		
NDB		
NDB/DME		
RNAV (GPS)		
VOR/DME RNAV		
SDF		
TACAN		
VOR		
VOR/DME		
LOC/BC/DME		

C. GPS Authorization. Volume 4, Chapter 1, Section 2 provides more extensive guidance on GPS and GPS WAAS equipment. The applicant must show that it has the ability to safely conduct GPS operations.

1) Background. GPS approach procedures have evolved from overlays of existing conventional approaches to standalone GPS approaches. (Overlay approaches are predicated upon the design criteria of the ground-based Navigational Aid (NAVAID) used as the basis of the approach and do not adhere to the design criteria for standalone GPS approaches.) Due to this transition, the FAA has revised the titles of the approach procedures to reflect these upgrades. The titles of all remaining GPS overlay procedures have been revised on the approach charts to read "…or GPS" (e.g., very high frequency omni-directional range (VOR) or GPS RWY 24). Therefore, all the approaches that can be used by GPS now contain "GPS" in the title (e.g., "VOR or GPS RWY 24," "GPS RWY 24," or "RNAV (GPS) RWY 24"). During these GPS

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approaches, underlying ground-based NAVAIDs are not required to be operational and associated aircraft avionics need not be installed, operational, turned on, or monitored (although monitoring of the underlying approach is suggested when equipment is available and operational). Existing overlay approaches may be requested using the GPS title. For example, request "GPS RWY 24" to fly the VOR or GPS RWY 24 approach.

NOTE: VOR/distance measuring equipment (DME) RNAV approaches will continue to be identified as VOR/DME RNAV RWY (Number) (e.g., VOR/DME RNAV RWY 24). VOR/DME RNAV, procedures which can be flown by GPS will be annotated with "or GPS" (e.g., VOR/DME RNAV or GPS RWY 24).

2) WAAS. As the satellite navigation evolution continues, WAAS has been developed to improve the accuracy, integrity and availability of GPS signals. WAAS receivers support all basic GPS approach functions and will provide additional capabilities. One of the major improvements provided by WAAS is the ability to generate an electronic glidepath, independent of ground equipment or barometric aiding. There are differences in the capabilities of the WAAS receivers. Some approach-certified receivers will only support a glidepath with performance similar to baro-VNAV, and are authorized to fly the LNAV/VNAV line of minima on the RNAV (GPS) approach charts. Receivers with additional capabilities, such as update rate and integrity limits are authorized to fly the LPV or LP line of minima. WAAS approach procedures may provide LPV, LNAV/VNAV, LP, and LNAV minima, and are charted as RNAV (GPS) RWY (Number) (e.g., RNAV (GPS) RWY 24). For further guidance, please see the AIM or contact AFS-400 at FAA HQ.

NOTE: Some WAAS installations do not support approaches at all, while some do not support LPV or LP lines of minima.

3) Local Area Augmentation System (LAAS). An additional augmentation system, LAAS has been developed to provide precision approaches similar to ILS at airfields. These precise approaches are based on GPS signals augmented by ground equipment. The international term for LAAS is GBAS and the approaches that use the equipment are referred to as GLS or GNSS Landing System approaches. LAAS equipment consists of a GBAS Ground Facility (GGF) supported by a minimum of four accurately surveyed reference stations and an uplink antenna called the very high frequency (VHF) Data Broadcast (VDB) antenna, as well as an aircraft LAAS receiver. The GGF can support multiple runway ends or landing areas served by procedures that are within the service coverage.

a) Similar to LPV and ILS approaches, GLS provides lateral and vertical guidance. By design, LAAS was developed as an "ILS look-alike" system from the pilot perspective. Unlike WAAS, LAAS may support approaches to CAT III Approach minima in the future due to its nearly identical performance standards to ILS in terms of accuracy, integrity, availability, and continuity. Portions of the GLS approach prior to and after the Final Approach Segment (FAS) may be based on RNAV or RNP segments. Therefore, a switch transition between RNAV or RNP and GLS modes may be required. In the future, the GGF may be able to support portions of the procedure outside the FAS.

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b) There are also a few differences from LPV, GLS, and ILS approaches in terms of charting, procedure selection, and identification. The LAAS procedure is titled "GLS Rwy XX" on the approach chart. In the aircraft, pilots will select a five-digit GBAS channel number or associated approach within the flight management system (FMS) menu. Selection of the GBAS channel number by pilot or FMS also tunes the VDB. The VDB provides information to the airborne receiver where the guidance is synthesized. The LAAS procedure is identified by a four alpha-numeric character field referred to as the Reference Path Indicator (RPI) or approach ID. This identifier is analogous with the IDENT feature of the ILS. The RPI is charted. Following procedure selection, confirmation that the correct LAAS procedure is loaded can be accomplished by cross-checking the charted RPI with the cockpit displayed RPI or audio identification of the RPI with Morse code (for some systems). Once selected and identified, the pilot will fly the GLS approach using the same techniques as an ILS.

c) Additional training may be required to authorized GLS approach and landing operations for commercial operators. If the operator is authorized to fly GLS approaches, flightcrews must be able to tune, identify, and conduct all stages of a GLS approach, including different types of missed approaches. However, some or all of these requirements may be demonstrated when conducting other operations, and may require little or no additional training. For example, an RNAV Missed Approach Segment (MAS) on a GLS may be demonstrated on another required approach, and the actions required to tune and identify GLS may require nearly identical actions on the part of the crew, based on the type of avionics used. Inspector guidance will be updated as GLS policy and procedures continue to evolve. If you have any questions on GLS training issues, contact AFS-400 at 202-267-8806.

D. Crew Training and Qualification. Crew training and qualification for all authorized instrument approach operations should meet the requirements in:

- Volume 3, Chapter 19;
- AC 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations (current edition);
- Title 14 CFR parts 61, 91, 121, 125, and 135; and
- Advanced Qualification Program (AQP) requirements, if applicable.

E. Authorized Criteria for Approved IAPs. For operations to all U.S. airports, operators are authorized to execute instrument approach operations on IAPs that have been published:

1) Under part 97.

2) Under criteria in the current edition of FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

3) Under any other criteria authorized by AFS-400.

4) By the U.S. military agency operating the U.S. military airport.

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NOTE: All published Standard Instrument Approach Procedures (SIAP) in the United States meet this requirement.

F. Runway Visual Range (RVR). Touchdown zone (TDZ) RVR is controlling for all operations authorized in C052. All other RVR reports are advisory. A mid-field RVR report may substitute for an inoperative TDZ RVR report, except for Special Authorization (SA) CAT I operations as described in subparagraph J.

G. Continuous Descent Final Approach (CDFA) Technique. CDFA is a specific technique for flying the FAS of an IAP as a continuous descent, without level off, from an altitude at or above the final approach fix (FAF) altitude, typically to a point approximately 50 feet above the runway threshold or the point where the flare will begin. For approaches that do not use LNAV/VNAV, LPV, or an ILS/GLS glidepath, a CDFA technique is recommended. When electronic or a prestored computed vertical guidance is not used, Vertical Speed (VS) or Flight Path Angle (FPA) may be used to achieve a CDFA profile. Compared to the "step down" descent approach technique, where the aircraft descends step-by-step prior to the next minimum altitude, a CDFA technique has safety and operational advantages, such as standardization of procedures, simplification of the decision process (one technique and one decision at one point), and use of a stable flightpath. However, precision approach obstacle penetration is not provided.

1) When using a CDFA technique, the decision point to determine if the flightcrew has the required visual references in sight to continue below the MDA may only be treated like a DA in reference to approach profiles and procedures. The operator must add an altitude increment to the MDA (e.g., 50 feet) to determine the altitude at which the missed approach must be initiated in order to prevent descent below the MDA or flight beyond the missed approach point (MAP).

2) The operator should ensure, prior to conducting CDFA, each flightcrew member intending to fly CDFA profiles undertakes training appropriate to the aircraft, equipment, and the different kinds of IAPs to be flown.

H. Reduced Precision CAT I Landing Minima. C052 specifies the equipment usage requirements and part 97 SIAP depiction required for reduced CAT I landing minima. Credit is given for flight director (FD), autopilot, and Head-Up Display (HUD) usage. The POI should allow the use of 1800 RVR minima to runways without centerline (CL) lighting or TDZ lighting, provided the SIAP contains a straight-in ILS minimum with the chart note, "RVR 1800 Authorized with use of FD or AP or HUD to DA." Additionally, the operator issued C052 is allowed to continue to use 1800 RVR line of minima on SIAPs without the above procedural note when the TDZ and/or CL lights are inoperative, if the approach is conducted in accordance with the equipment requirements outlined in C052. This is also reflected in the published inoperative components table for IAPs.

1) FAA Approval. Operators may continue to use the standard CAT I minima based solely on ground lighting systems without alteration of current authorizations or procedures. Operators can utilize reduced CAT I landing minima, provided the SIAP contains a straight-in ILS minimum with the chart note, "RVR 1800 Authorized with use of FD or AP or HUD to DA."

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2) Conditions of Approval. Before issuing the C052 authorization to use reduced CAT I minima based on aircraft equipment and operation, inspectors shall ensure that each operator meets the following conditions:

a) Aircraft and Associated Aircraft Systems. The authorized aircraft must be equipped with an FD, autopilot, or HUD that provides guidance to DA. The FD, autopilot, or HUD must be used in approach mode (e.g., tracking the Localizer (LOC) and glideslope). Inspectors must establish that the FD, autopilot, or HUD are certified for use down to an altitude of 200 feet above ground level (AGL) or lower.

b) Flightcrew Procedures. The flightcrew must use the FD, autopilot, or HUD to DA or to the initiation of a missed approach, unless visual references with the runway environment are established, thus allowing safe continuation to a landing. If the FD, autopilot, or HUD malfunctions or becomes disconnected, the flightcrew must execute a missed approach unless the runway environment is in sight.

c) Flightcrew Qualification. Each member of the flightcrew must have demonstrated proficiency using the FD, autopilot, or HUD (as appropriate) on the most recent instrument proficiency check (IPC) required in part 61, §§ 61.57(e)(2) and 61.58; part 91, § 91.1069; part 121, § 121.441; part 125, § 125.291; and part 135, § 135.297 (as applicable), or in an approved AQP.

I. SA CAT I. OpSpec/MSpec/LOA C052 contains selectable text which authorizes SA CAT I ILS approaches to runways without TDZ or runway centerline (RCL) lights with a radar altimeter DH as low as 150 feet and a visibility minimum as low as RVR 1400 when using HUD to DH. The operator must meet all of the following requirements:

1) Aircraft Requirements. To be approved for SA CAT I, each airplane must be certified and maintained for CAT II Approach operations. Those airplanes and equipment must be listed in Table 2 of OpSpec C059. The authorized airplane(s) must be equipped with the HUD that is approved for CAT II or CAT III operations.

2) Training Requirements. The flightcrew must be current and qualified for CAT II operations. The flightcrew must demonstrate proficiency in ILS approaches and landings to this minimum or to a lower minimum using the HUD prior to commencing any SA CAT I operations. This requirement applies both to initial eligibility for SA CAT I, as well as recurrent training.

3) Operational Requirements.

a) The flightcrew must use the HUD to DH in a mode used for CAT II or CAT III operations. This mode provides greater lateral and vertical flightpath accuracy and more sensitive alarm limits.

b) The flightcrew must use the HUD to DH or to the initiation of a missed approach, unless adequate visual references with the runway environment are established that allow safe continuation to a landing. Should the HUD malfunction during the approach, the

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flightcrew must execute a missed approach unless visual reference to the runway environment has been established.

c) The crosswind component on the landing runway must be 15 knots or less, unless the AFM's crosswind limitations are more restrictive.

d) The part 97 SIAP must have a published SA CAT I minimum.

e) Unlike the other approaches authorized in C052, the mid RVR report may not be substituted for the TDZ RVR report when using SA CAT I minima.

f) Single-pilot operators are prohibited from using SA CAT I landing minima.

J. Instrument Approach Operations at Foreign Airports. C052 specifies the requirements for nonprecision, APV, and precision approach criteria at foreign airports.

1) The procedure must be constructed by the foreign state using criteria that is derived from (or based on) U.S. TERPS or ICAO Doc 8168, Procedures for Air Navigation Services, or it must be based on other criteria approved by AFS-400.

2) Visibility minima must be based on U.S. criteria, European Union (EU) or European Aviation Safety Agency (EASA) criteria, or the criteria in ICAO Doc 9365, Manual of All-Weather Operations.

3) The MDA/minimum descent height (MDH) or DA/H must be at least 200 feet height above touchdown (HAT) or height above threshold (HATh) unless otherwise authorized by an OpSpec/MSpec/LOA.

4) Sequenced flashing lights are not required when determining if the Approach Light System (ALS) is equivalent to U.S. standards.

5) This section also specifies the requirements for determining DA/MDA when an Obstacle Clearance Limit (OCL) or Obstacle Clearance Altitude (OCA) is specified.

K. PRM. The FAA began the Multiple Parallel Approach Program (MPAP) to research whether ILS approaches to parallel runways would improve capacity. The objective was to achieve improvements in airport arrival rates through the conduct of simultaneous, closely spaced parallel approaches. That objective is being met using PRM.

1) ILS PRM, Localizer-Type Directional Aid (LDA) PRM and RNAV (GPS) PRM Approaches with Vertical Guidance. Where parallel RCLs are less than 4,300 feet apart, but not less than 3,000 feet apart, simultaneous ILS PRM approaches may be conducted. Similarly, where parallel RCLs are less than 3,000 feet apart, but no less than 750 feet apart, simultaneous offset instrument approaches (SOIA) may be conducted using an ILS and an LDA approach with glideslope. Those approaches are labeled "ILS PRM" and "LDA PRM," respectively, on instrument approach charts. Air traffic control (ATC) provides one PRM monitor controller for each runway to provide intrusion protection for the no transgression zone (NTZ) located between the two final approach courses. Whenever the runway spacing

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(or in the case of SOIA, the approach course spacing) is less than 3,600 feet and at least 3,000 feet, NTZ monitoring is accomplished using a special PRM radar. Utilization of vertical guidance is required for all PRM approaches. RNAV (GPS) PRM approaches may be substituted for the ILS PRM and/or the LDA PRM approach. Pilots must have completed PRM training prior to conducting any PRM approach. An ILS PRM and its overlayed RNAV (GPS) PRM approach are procedurally equivalent. LDA PRM and its overlayed RNAV (GPS) PRM approach are procedurally equivalent. Pilots may request the RNAV (GPS) PRM approach in lieu of the ILS PRM or LDA PRM approach; however, they may only conduct the approach when specifically cleared to do so by ATC.

2) The Breakout Maneuver. Working with industry, the FAA conducted extensive analyses of simulation data and determined that the implementation of PRM and SOIA approach operations to closely spaced parallel runways requires additional crew training. The primary focus of this training is to raise each pilot's situational awareness in ILS PRM, LDA PRM, and RNAV (GPS) PRM operations. The breakout maneuver must be flown manually.

a) Traffic Alert. One important element of the additional training is the pilot's understanding of the difference between a normal missed approach initiated by a pilot, and a breakout initiated by a PRM final monitor controller. It must be clear to flightcrews that the words "Traffic Alert," when used by the final monitor controller, signal critical instructions that the pilot must act on promptly to preserve adequate separation from an airplane straying into the adjoining approach path.

b) ATC Breakout Maneuver Command to Turn and/or Descend, Climb, or Maintain Altitude. The flightcrew must immediately follow the final monitor controller's vertical (climb/descend/maintain altitude) and horizontal (turn) commands. If the flightcrew is operating the TCAS in the Traffic Advisory (TA)/Resolution Advisory (RA) mode and receives a TCAS RA at any time while following the final monitor controller's command, the flightcrew will simultaneously continue to turn to the controller's assigned heading and follow the vertical guidance provided by the TCAS RA.

c) Time-to-Turn Standard. Regardless of airplane type, tests and data analysis revealed that pilots normally passed through an angle of bank of at least 3 degrees while rolling into a breakout turn within 10 seconds of receiving a breakout command. (Bank angles of between 20 and 30 degrees were normally achieved during the breakout.) The operator must show that its pilots can readily meet this time-to-initiate-turn standard prior to the POI authorizing ILS/PRM or LDA/PRM approaches in OpSpec/MSpec/LOA C052. Flightcrews are required to manually fly the breakout maneuver unless otherwise approved by AFS-200 or AFS-800, as appropriate (AFS-200 and AFS-800 must have concurrence from AFS-400 to approve breakout in auto modes). The air carrier should demonstrate its ability to meet this standard by having representative pilots perform the breakout maneuver while the POI or the POI's designated representative observes. The demonstration should conform to procedures contained in the air carrier's approved operating manual for its flightcrews. The commercial operator should submit procedures to its POI for this authorization.

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NOTE: In a breakout, ATC will never command a descent below the applicable minimum vector altitude (MVA), thus assuring that no flight will be commanded to descend below 1,000 feet above the highest obstacle during a breakout.

3) ILS/PRM, LDA/PRM, RNAV (GPS) PRM and the Use of TCAS. TCAS may be operated in TA/RA mode while executing ILS PRM, LDA PRM or RNAV (GPS) PRM approaches. However, when conducting these operations, pilots must understand that the final monitor controller's instruction to turn is the primary means for ensuring safe separation from another airplane. Pilots must bear in mind that TCAS does not provide separation in the horizontal plane. TCAS accomplishes separation by commands solely in the vertical plane. Therefore, during final approach only the final monitor controller has the capability to command a turn for lateral separation. Flightcrews are expected to follow any ATC instruction to turn.

a) ATC Command to Turn with TCAS RA. In the unlikely event that a flightcrew should simultaneously receive a final monitor controller's command to turn and a TCAS RA, the flightcrew must follow both the final monitor controller's turn command and the TCAS RA's climb or descent command.

b) TCAS RA Alone. In the extremely unlikely event that an RA occurs without a concurrent breakout instruction from the final monitor controller, the pilot should follow the RA and advise the controller of the action taken as soon as possible. In this instance, it is likely that a breakout command would follow.

c) TCAS Not Required. An operative TCAS is not required to conduct ILS/PRM or LDA/PRM approaches.

4) Pilot Training. See Volume 4, Chapter 2, Section 5 for information on pilot training required prior to authorizing PRM approaches.

5) ILS PRM, LDA PRM, and RNAV (GPS) PRM Authorizations. Operators will be authorized ILS PRM, LDA PRM, and RNAV (GPS) PRM approaches in the OpSpec/MSpec/LOA C052 templates. A definition of RNAV (GPS) PRM has been added to the A002 template.

OPSPEC/LOA C054—SPECIAL LIMITATIONS AND PROVISIONS FOR INSTRUMENT APPROACH PROCEDURES AND IFR LANDING MINIMUMS.

A. General. C054 is issued to all operators conducting operations under 14 CFR part 121, 125, and 125 (LODA A125). It is also issued to operators who conduct turbine-powered airplane operations under 14 CFR part 135. It is not issued to part 135 operators who do not operate turbine-powered airplanes unless that operator also conducts operations under part 121. C054 specifies the Runway Visual Range (RVR) landing minimum equivalent to the published RVR landing minimum that must be used by high-minimum pilots (less than 100 hours in aircraft type).

B. PIC Qualifications. For part 121 and part 135 operations, C054 also specifies that before a pilot in command (PIC) of a turbojet can conduct an instrument approach with visibility conditions reported to be below ¾ statute mile or RVR 4000 (basic turbojet landing minimums),

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the pilot must be specifically qualified and authorized to use standard landing minimums. See Volume 4, Chapter 2 for information on the qualification and authorization requirements to use the standard landing minimums.

C. PIC Takeoff Guidance. Further, for part 121 and part 135 operations, after the PIC has been qualified to use lower landing minimums, and the destination visibility conditions are forecast to be less than ¾ statute mile or RVR 4000, the pilot of a turbojet airplane shall not take off unless:

1) The destination runway length has been determined prior to takeoff to be at least 115 percent of the runway field length required by the provisions of part 121, § 121.195(b) or part 135, § 135.385(b), as appropriate, and

2) Precision instrument (all weather) runway markings or runway centerline (RCL) lights must be operational on that runway.

3) Once airborne, additional consideration of landing field length by the flightcrew is not required for normal operations. If unforecasted adverse weather or failures occur, the crew and aircraft dispatchers should consider any adverse consequences that may result from a decision to make a landing. The runway length needed in these changed circumstances must be determined considering the runway in use, runway conditions, current weather, Aircraft Flight Manual (AFM) limitations, operational procedures, and aircraft equipment status at the time of landing.

OPSPEC/MSPEC/LOA C055—ALTERNATE AIRPORT IFR WEATHER MINIMUMS.

A. Applicability. OpSpec/MSpec/LOA C055 is an optional authorization available to the operator conducting airplane operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (including the Letter of Deviation Authority (LODA) 125 holders), and 135. C055 provides a table from which the operator derives alternate airport instrument flight rules (IFR) weather minimums in those cases that require an alternate airport.

NOTE: Technical questions regarding the alternate airports and approaches authorized by C055 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-267-8790. Questions regarding the issuance of C055, including operational and training requirements, should be directed to the Air Transportation Division (AFS-200) at 202-267-8166, or General Aviation and Commercial Division (AFS-800) at 202-267-1081.

B. Airports With At Least One Operational Navigation Facility. The first row of Table 1, Alternate Airport IFR Weather Minimums, is for airports with at least one operational navigation facility providing a straight-in Nonprecision Approach (NPA) procedure, a Category (CAT) I precision approach, or, when applicable, a circling maneuver from an instrument approach procedure (IAP). The operator obtains the required ceiling and visibility by adding 400 feet to the minimum descent altitude (MDA) or, when applicable, the authorized decision altitude/height (DA/H) and by adding 1 statute mile (sm) (1,600 meters (m)) to the authorized landing minimum. Additives are applied only to the height value to determine the required ceiling.

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C. Airports With At Least Two Operational Navigation Facilities. The second row of Table 1 is for airports with at least two operational navigation facilities, each providing a straight-in NPA procedure or a straight-in CAT I precision approach procedure to different suitable runways. The operator obtains the required ceiling and visibility by adding 200 feet to the higher MDA or DA/H of the two approaches used and by adding ½ sm (800 m) of visibility to the higher authorized landing minimum of the two approaches used. Additives are applied only to the height value to determine the required ceiling.

NOTE: For operations outside the United States, because of variations in the international metric weather forecasting standard, 700 m may be used in lieu of 800 m.

D. Higher Alternate Minimums When Using Two Operational Navigation Facilities. In some cases, it is possible to have higher alternate minimums when using two operational navigation facilities than when using one.

1) For example, if an airport with one operational navigation facility providing a straight-in NPA procedure had an MDA of 400 feet and 1 sm visibility, the operator would have alternate minimums of 800 feet and 2 sm visibility (400 feet (procedure MDA) + 400 feet and 1 sm (procedure visibility) + 1 sm).

2) In this example, an airport has two operational navigation facilities each providing a straight-in approach procedure to a different suitable runway. One straight-in approach has a DA of 400 feet and ¾ sm visibility, and the other straight-in approach has an MDA of 600 feet and ½ sm visibility. The alternate minimums would be 800 feet and 1¼ sm. (600 feet (highest DA/H or MDA of the two approaches) + 200 feet = 800 feet, and ¾ sm (highest required visibility of the two approaches) + ½ sm = 1¼ sm.)

3) In some instances, deriving alternate minimums utilizing only one operational navigation facility will provide for lower minimums than utilizing the two operational navigation facility method. When this situation exists, the operator may elect to consider the airport as having only one operational navigation facility and, therefore, choose either method contained in Table 1 to derive the lowest alternate minimums for that airport.

NOTE: In determining alternate airport weather minimums, the operator must not use any published IAP, which specifies that alternate airport weather minimums are not authorized (NA). On charts produced by the government, this is depicted by "Alternate Minimums Not Authorized" symbol. A NA Other providers, such as Jeppesen, may not use this symbol.

E. Using Two Different Runways. Two different runways may be the different ends of the same physical runway surface (e.g., runway 4 and runway 22 are two different runways). When determining the suitability of a runway, wind (including gust) must be forecast to be within operating limits (including reduced visibility limits) and should be within the manufacturer's maximum demonstrated crosswind. All conditional forecast elements below the lowest applicable operating minimums must be taken into account. The operator should also take

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into account any other potential runway limitations, such as Notices to Airmen (NOTAM), which may affect the landing at the estimated time of arrival (ETA).

F. Credit for Alternate Minimums. OpSpec/MSpec/LOA C055 allows credit for alternate minimums based on engine inoperative CAT II or CAT III capability. Additional selectable rows for Table 1 list the appropriate credit based on either CAT II or CAT III. To authorize this credit, principal operations inspectors (POI) will place a check mark in the appropriate selectable row of C055 Table 1. When authorized in C055, flightcrews who are CAT II and/or CAT III trained and qualified may take credit for engine inoperative CAT II/III qualified aircraft and adjust the minimums accordingly. The alternate minimums are based on CAT III engine inoperative requirements. The following are some, but not all, of those requirements. Refer to criteria in the current edition of Advisory Circular (AC) 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout, for further engine inoperative requirements.

1) Aircraft receives approval for engine inoperative CAT III.

2) The operator establishes appropriate procedures.

3) The flightcrew receives performance and obstruction clearance information.

4) The flightcrew receives appropriate aircraft configuration information, wind limits, and other appropriate information.

G. Use of Global Positioning System (GPS)-Based IAP Minimums at an Alternate Airport. Alternate airport planning policy for the operator is based on their equipage. Use of GPS-based IAP minimums as the departure, en route, or destination alternate airport is authorized in the U.S. National Airspace System (NAS) and in any foreign State where GPS-based (or other Global Navigation Satellite System (GNSS)-based) approaches are authorized for alternate planning. To determine if a foreign State authorizes GPS-based (or other GNSS-based, including Satellite Based Augmentation System (SBAS)-based) approaches for alternate planning, consult the applicable Aeronautical Information Publication (AIP). The wide area augmentation system (WAAS) navigation-equipped operator may still plan for GPS-based IAP (e.g., GPS, Area Navigation (RNAV) (GPS), or RNAV Required Navigation Performance (RNP)) at both the destination and the alternate airport. The GPS navigation-equipped operator with fault detection and exclusion (FDE) capability, but without WAAS navigation equipment may now plan for GPS-based IAP at either the destination or the alternate airport. Finally, the GPS- or WAAS-equipped operator with barometric vertical navigation (baro-VNAV) equipment may plan to use this capability at either destination or alternate airports.

1) Use Table 2, GPS-Based IAP Authorizations, to authorize GPS-based IAP minimums at the alternate airport. Input airplane information in the “Make/Model/Series” (M/M/S as used in the “Job Aid”) column of Table 2. In the “Conditions and Limitations” column, select the applicable optional subparagraphs b(8)(e)(i)-(iv) for part 121, 125, 135, and 91K or subparagraphs 2h(5)(A)-(D) for part 125 LODA holders.

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2) If there are mixed fleets (e.g., retrofits or other changes), verify that the operator has a method to track various equipage levels of the fleet, and provides that information to appropriate flightcrew and ground personnel.

3) If the user is not equipped with FDE or WAAS, select "N/A" from the drop-down lists in the "Conditions and Limitations" and "Remarks" columns of Table 2.

4) For additional clarity, refer to the job aid and see Figure 3-196, GPS-Based Instrument Approach Procedures.

H. Use of GPS-Based IAP at an Extended Operations (ETOPS) Alternate Airport. The use of a GPS-based IAP at an ETOPS alternate airport requires prior approval from AFS-200. A part 121 and/or 135 certificate holder seeking this type of authorization will need to show that it has adequate procedures, flight planning capability, pilot training, and for part 121 operations, aircraft dispatcher or flight following personnel training (based on the kind of operation, flag or supplemental) to support the authorization. The certificate-holding district office (CHDO) with oversight responsibility of a certificate holder seeking this level of authorization is responsible for obtaining AFS-200's approval. The CHDO must request this approval via memo and provide the appropriate supporting documentation to AFS-200 (see subparagraph H3). There are two optional subparagraph b(10) text selections available in the C055 template for parts 121 and 135 (including 121/135 combination certificates). Both options authorize the use of a GPS-based IAP at an ETOPS alternate. Option 1 allows a certificate holder to use a GPS-based IAP when receiver autonomous integrity monitoring (RAIM) predictions indicate there will be a limited unavailability of RAIM at the ETOPS alternate. Option 2 authorizes the use of a GPS-based IAP at an ETOPS alternate airport provided there is no predicted loss RAIM. Both options are based on specific conditions and limitations. The CHDO will select one of the two options. The CHDO may not grant the certificate holder the authority to exercise both options. The CHDO's memo to AFS-200 must specify which optional subparagraph b(10) the CHDO is seeking approval to authorize.

1) Option 1: This selectable option allows for use of a GPS-based IAP at a designated ETOPS alternate when, from the earliest time to the latest time the airplane would arrive at the ETOPS alternate, a limited unavailability RAIM is predicted at the airport. This is allowable only when all of the conditions and limitations of this option are followed. Use of a GPS-based IAP at a designated ETOPS alternate airport under Option 1 may be authorized with approval from AFS-200, in accordance with the procedures listed below.

a) The certificate holder is authorized to use GPS-based IAP that meet the requirements in subparagraph b(8) of the OpSpec template and the alternate airport weather minimums derived from Table 1 to designate an ETOPS alternate airport.

b) The certificate holder may designate an ETOPS alternate airport that has a GPS-based IAP as the only IAP at that airport if the certificate holder meets the following requirements:

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1. The certificate holder must establish RAIM prediction for any designated ETOPS alternate airport during the entire time from the earliest to the latest time an airplane would arrive at the designated ETOPS alternate airport.

2. In the event of a predicted, continuous loss of RAIM (from the earliest time to the latest time the airplane would arrive), the certificate holder must not use the airport as an ETOPS alternate airport.

3. In the event of any limited unavailability of RAIM, the certificate holder must:

- Notify the flightcrew of any limited unavailability of RAIM at that ETOPS alternate.
- Prior to departure, ensure adequate fuel is onboard the airplane to account for the time period of predicted RAIM unavailability at the ETOPS alternate. This fuel must be calculated by adding the fuel required to account for the time of the predicted RAIM unavailability to the fuel required to fly to the affected ETOPS alternate from the Equal Time Point (ETP).
- Ensure the time of predicted RAIM unavailability plus the time to and from the ETP to the ETOPS alternate airport does not exceed the time specified for the airplane's most time-limited ETOPS significant system (including cargo fire suppression) minus 15 minutes.

2) Option 2: This option does not allow for any unavailability of RAIM at the ETOPS alternate airport during the period from the earliest time to the latest time the airplane would arrive at the ETOPS alternate. Use of a GPS-based IAP at an ETOPS alternate under Option 2, may be authorized with approval from AFS-200, in accordance with the procedures listed below.

a) The certificate holder is authorized to use GPS-based IAP that meet the requirements in subparagraph b(8) of the OpSpec template and the alternate airport weather minimums derived from Table 1 to designate an ETOPS alternate airport.

b) The certificate holder may designate an ETOPS alternate airport that has a GPS-based IAP as the only IAP at that airport if the certificate holder meets the following requirements:

1. The certificate holder must establish RAIM prediction for any designated ETOPS alternate airport during the entire time from the earliest to the latest time an airplane would arrive at the designated ETOPS alternate airport.

2. In the event of any predicted loss of RAIM, limited or continuous, (at any time during the period from the earliest time to the latest time the airplane would arrive) the certificate holder must not use the airport as an ETOPS alternate airport.

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3) Required Documentation for Submission to AFS-200. When submitting a request to AFS-200 for approval to issue the authority to a certificate holder to use a GPS-based IAP at an ETOPS alternate airport, send the request directly to the manager of AFS-200. (Do not send the memo through the regional Flight Standards division (RFSD)). Along with the memo, the CHDO must include the following information with the request. AFS-200 will not approve the CHDO to issue the authorization until AFS-200 determines the supporting documentation is adequate to support the authorization:

a) A copy of the certificate holder's RAIM prediction procedures.

b) A sample ETOPS flight plan and dispatch release that includes, or has attached to it, RAIM predictions. For Option 1, the flight plan must also depict the fuel account for the predicted RAIM unavailability at the ETOPS alternate.

c) A copy of the certificate holder's pilot/aircraft dispatcher/flight following personnel (depending on kind of operation) training that addresses this particular authority.

Figure 3-196. GPS-Based Instrument Approach Procedures

GPS-based IAP at Either Destination or Alternate (not both)					
Paragraph Reference	TSO	FDE	BaroVNAV	Opsec/MSpec /LOA	Alternate Restrictions
i	TSO-C129( ) or TSO-C196( )	yes	no	C052	LNAV MDA
ii	TSO-C129( ) or TSO-C196( )	yes	yes	C052	LNAV MDA or LNAV/VNAV DA
ii	TSO-C129( ) or TSO-C196( )	yes	yes	C052 & C384	RNAV (RNP) no lower than RNP 0.30 DA
GPS-based IAP at Destination and Alternate (may be either or both)					
iii	TSO-C145( ) or TSO-C146 ( )	yes	no	C052	LNAV MDA
iv	TSO-C145( ) or TSO-C146 ( )	yes	yes	C052	LNAV MDA or LNAV/VNAV DA
iv	TSO-C145( ) or TSO-C146 ( )	yes	yes	C052 & C384	RNAV (RNP) no lower than RNP 0.30 DA

I. Definition of "Two Operational Facilities."

1) The words "two operational facilities" mean that in the event there is a single failure of one facility, the other would be operational. For example, an airport has instrument landing system (ILS) RWY 2 with 110.9 as the frequency and (I-EZD) as the identifier. Additionally, this airport has an ILS or Localizer (LOC) RWY 34 with 110.7 as the frequency and (I-BNE) as the identifier. This airport has two distinct ILS frequencies and two ILS facilities.

2) On the other hand, an airport could have a single transmitter frequency to support ILS approaches at each runway end. Although the transmitter frequency is the same, there is a different identifier for each runway end. For example, an airport has ILS RWY 16 with 110.7 as the frequency and (I-RGJ) as the identifier. Additionally, this airport has ILS RWY 34 which uses the same transmitter and frequency of 110.7 and (I-BNE) as the identifier. This airport has one ILS frequency and one ILS facility.

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J. Helicopter Authorizations. For helicopter authorizations, see OpSpec/MSpec H105, Alternate Airport IFR Weather Minimums.

OPSPEC C056—IFR TAKEOFF MINIMUMS, PART 121 OPERATIONS—ALL AIRPORTS. C056 is issued to all operators who conduct operations under 14 CFR part 121.

A. General. C056 did not change in policy but was split into two paragraphs for programming purposes in the new automated Operations Safety System (OPSS): C056 and C078/C079.

B. Using Lower-Than-Standard Takeoff Minimums. If an operator is not authorized to use lower-than-standard takeoff minimums, C078 will not be issued. See Volume 4, Chapter 2 for information concerning requirements an operator must meet before being authorized to use lower–than-standard takeoff minimums. If an operator conducts operations under both 14 CFR parts 121 and 135, C056 and C057 may need to be issued. For more information, see the following:

- Part 121, §§ 121.649 and 121.651(a)(1).
- Title 14 CFR part 91, § 91.175(f).
- Volume 4, Chapter 2.
- Flight Standardization Board (FSB) report for specific aircraft.

C. Availability to Part 91 Subpart K (Part 91K) Program Managers. This is not available or applicable to part 91K program managers. See § 91.1039(e).

OPSPEC C057—IFR TAKEOFF MINIMUMS, PART 135 OPERATIONS—ALL AIRPORTS. C057 is issued to all 14 CFR part 135 operators who conduct instrument flight rules (IFR) airplane operations to authorize an operator to use standard takeoff minimums or lower-than-standard takeoff minima that are equal to the lowest straight-in landing minimums (part 135, § 135.225(h)).

A. Issuance for Conducting IFR Standard Takeoff Minimums. C057 is issued for conducting IFR standard takeoff minimums, which are defined as 1 statute mile visibility or Runway Visual Range (RVR) 5000 for airplanes having two engines or fewer, and ½ statute mile visibility or RVR 2400 for airplanes having more than two engines. RVR reports, when available for a particular runway, must be used for all takeoff operations on that runway. All takeoff operations, based on RVR, must use RVR reports from the locations along the runway specified in this paragraph.

B. Single Engine IFR (SEIFR) Authorization. The principal operations inspector (POI), principal maintenance inspector (PMI), and principal avionics inspector (PAI) must coordinate the issuance of OpSpecs A046, C057, and D103 once the operator has met the requirements for SEIFR operations. All three OpSpec paragraphs must be issued for SEIFR authorization.

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1) OpSpec A046 contains specific maintenance and operational limitations and provisions necessary for the authority to operate under IFR while carrying passengers in a single-engine airplane.

2) OpSpec C057 authorizes standard IFR takeoff minimums or lower-than-standard takeoff minima equal to the lowest straight-in landing minimums. SEIFR part 135 passenger-carrying operations are not authorized for lower-than-standard takeoff minimums at any airport without concurrence and authorization from FAA headquarters (HQ) unless they are conducted in turbine-powered aircraft. The POI can authorize turbine-powered single-engine passenger-carrying aircraft to conduct lower-than-standard takeoff minima equal to the lowest authorized straight-in Category (CAT) I IFR landing minimum applicable to the certificate holder for that particular airport by selecting subparagraph D from the appropriate drop-down list in OpSpec C057. (Refer to § 135.225(i).)

3) OpSpec D103 contains additional maintenance requirements for airplanes operated in SEIFR operations.

C. Subparagraph Selectable for Issuance of C057. The following subparagraph is selectable for issuance in C057, if applicable:

> "c. When takeoff minimums are equal to or less than the applicable standard takeoff minimum, the certificate holder is authorized to use a takeoff minimum equal to the lowest authorized straight in CAT I IFR landing minimum applicable to the certificate holder for that particular airport. The Touchdown Zone RVR report, if available, is controlling."

D. Subparagraph Selectable for Issuance of C057 for Turbine-Powered, Single-Engine Airplanes. The following subparagraph is selectable for issuance in C057 for turbine-powered, single-engine airplanes:

> "d. Notwithstanding the requirements of the "NOTE" in subparagraph b above, the certificate holder is authorized lower than standard takeoff minimums for its part 135 single engine passenger carrying operations in its turbine powered single engine airplanes only per the limitations and provisions of C057 including subparagraph c."

E. Authorizing Part 135 Operators to Use Takeoff Minimums Lower Than ½ Mile or RVR 1800. OpSpec C079 is applicable for authorizing the part 135 operator to use takeoff minimums lower than ½ mile or RVR 1800. Refer to the current edition of Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, for information concerning requirements an operator must meet before being authorized to use lower-than-standard takeoff minimums. OpSpec C079 is not authorized for SEIFR passenger-carrying operations.

F. Other Applicability and Authorizations. C057 is not applicable or available for 14 CFR part 91 subpart K (part 91K) program managers. See part 91, § 91.1039(e). For helicopter authorizations, see OpSpecs H106 and H116.

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OPSPEC C058—SPECIAL RESTRICTIONS FOR FOREIGN TERMINAL INSTRUMENT PROCEDURES.

A. General. C058 is issued only when the principal operations inspector (POI) (or region responsible for the geographic area where a foreign airport is located) finds it necessary to place special restrictions on a foreign terminal instrument procedure.

B. Purpose and Applicability of Restrictions. These special restrictions to foreign Terminal Instrument Procedures (TERPS) are applicable to U.S. air carriers (14 CFR parts 121 and 135) and program managers (14 CFR part 91 subpart K (part 91K)). The purpose of these special restrictions is to establish an equivalency between the foreign terminal instrument procedure and the International Civil Aviation Organization (ICAO) Procedures for Air Navigation Services Aircraft Operations (PANS-OPS) or TERPS criteria.

C. Other Guidance. FAA Order 8260.31, Foreign Terminal Instrument Procedures, current edition, provides direction and guidance on how to place restrictions on foreign instrument procedures. This order also contains a list of foreign TERPS that are currently restricted. If an operator conducts flights to any airport listed in the appendices of this order, the POI must issue C058 with the name of the airport, airport identification, procedure identification, and special restrictions listed.

D. Considerations and Procedures for Chek Lap Kok Airport. On July 6, 1998, Hong Kong's new airport (Chek Lap Kok) opened; at the same time, Hong Kong's old airport (Kai Tak) closed. Since there has been no revision to the appendices of Order 8260.31, we recommend removing the reference to Kai Tak airport from C058 and referencing the Chek Lap Kok airport. Consideration and procedures will be established for the following at the new Chek Lap Kok airport:

1) Loss of navigation capability;

2) Severe reduction of aircraft climb performance due to engine or aircraft system failures; and

3) Escape paths for the above situations.

E. Helicopter Authorization. For helicopter authorization, see OpSpec/MSpec H107.

OPSPEC/MSPEC/LOA C059—CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: 14 CFR PARTS 91, 121, 125, 125M, 135, AND 91K OPERATORS) AND SPECIAL AUTHORIZATION CATEGORY I INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: PART 91 OPERATORS).

NOTE: NextGen Tracking. Applications for approvals for this paragraph must be entered in the Regional NextGen Tracker as indicated in the General Procedures Section (Volume 3, Chapter 1, Section 1).

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A. General. Category (CAT) II operations are approved by issuance of OpSpec C059 to certificate holders for 14 CFR parts 121, 125, and 135; MSpec C059 to program managers for 14 CFR part 91 subpart K (part 91K) fractional ownership operations; and LOA C059 to operators for parts 91 and 125M operations. Guidance for authorizing helicopter CAT II/CAT III operations can be found in Volume 4, Chapter 2, Sections 2 and 3.

B. Authorization for CAT II Airplane Operations. All initial CAT II authorizations for each operator/program manager and each airplane type used by that operator/program manager require regional Flight Standards division (RFSD) Next Generation Air Transportation System (NextGen) branch review and concurrence before issuing OpSpec/MSpec/LOA C059. RFSD concurrence is also required before amending OpSpec/MSpec/LOA C059 to include an airplane make, model, and series (M/M/S) new to the operator/program manager. CAT II operations are evaluated for authorization with reference to the following:

1) Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach (current edition).

2) Approval of U.S. Operators for Special Authorization Category I and All Category II/III Operations—Parts 91 (Large Aircraft), 91K, 121, 125, and 135.

3) Approval of Small Category A Aircraft for Category II Operations—Part 91.

4) Volume 4, Chapter 2, Section 6, Category II Operations.

5) Applicable Lower Landing Minimums (LLM) maintenance program approved by the assigned avionics inspector in accordance with Volume 4, Chapter 2, Section 10.

C. Approved Airplanes. Each airplane type (M/M/S) used in CAT II operations must be listed in Table 1 of C059 and have an acceptable LLM maintenance program. The approach/landing system used, lowest decision height (DH), lowest touchdown zone (TDZ) Runway Visual Range (RVR) authorized for each airplane type, and any special equipment and other limitations must also be specified. The example in Table 3-17, Example of Category II Approach and Landing Minimums, illustrates the method for authorizing each airplane in OpSpec/MSpec/LOA C059.

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Table 3-17. Example of Category II Approach and Landing Minimums

Airplane M/M/S	Approach/Landing System	DH	TDZ RVR	Special Operational Equipment and Limitations
DC-9-31	Autopilot	100 ft	1,600	N/A
B 727-217	Autopilot	100 ft	1,600	
ERJ-190-100	Manual (HUD)	100 ft	1,200	Dual HUD A3 Mode All engines and autothrottle operating
CL-600-2D24	Autopilot	100 ft	1,200	AFM supplement 4 equipment operating
A-320-12	Autopilot	100 ft	1,200	N/A
DHC-8-402	Manual (HUD)	100 ft	1,000	N/A
B-737-200	Autoland	100 ft	1,000	
B-777-F	Autopilot	100 ft	1,000	Autoland required for RVR 1000 (300m)

NOTE: Refer to Table 1 of OpSpec C059.

D. CAT II Approach and Landing Systems. The equipment required to conduct either manually or automatically flown CAT II operations is specified in Table 1 of OpSpec/MSpec/LOA C059 (see sample in Table 3-17 above). The equipment required is established in accordance with the applicable regulations, the approved Aircraft Flight Manual (AFM) (if applicable), and AC 120-29. There are two acceptable methods of demonstrating that an airplane meets the technical qualifications and is eligible for CAT II operations. These acceptable methods are by approval under the type certificate (TC) or Supplemental Type Certificate (STC) holder, or an operation demonstration conducted by an operator/program manager. Type design approval is discussed in AC 120-29, paragraphs 5.19 through 5.19.3, and paragraph 10.5.

1) TC or STC Approval. The approved AFM (or Aircraft Flight Manual Supplement (AFMS)) identified in the airplane type design typically contains a statement that the airborne systems and equipment meet performance requirements, a statement regarding reliability and/or redundancy, and affirmation that such systems and equipment have been demonstrated to be eligible for CAT II operations. The AFM or AFMS also may specify that certain equipment is required for airworthiness approval of the various kinds of CAT II operations. Some AFMs or AFMSs also may indicate that acceptable CAT II performance was demonstrated, both with and without certain equipment (e.g., “autothrottles w/wo”). AC 120-29 also specifies that certain types of equipment are required for operations approval of the various kinds of CAT II operations (manual/autopilot). Therefore, the approved AFM or AFMS and AC 120-29 must be considered in determining if the additional equipment requirement meets the criteria. The equipment must be listed (specified) in Table 1 of OpSpec/MSpec/LOA C059. See Table 3-17.

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a) Equipment that is explicitly required by the airplane certification regulations (14 CFR parts 23 and 25), the operating regulations (parts 91, 91K, 121, 125, and 135) and/or the approved AFM or AFMS *should not be listed* in Table 1 of the OpSpec/MSpec/LOA. The standard text of C059 requires that this equipment be installed and operational. The additional equipment or operational requirement that must be listed (specified) in OpSpec/MSpec/LOA C059 is determined by cross-checking the equipment required by regulations and the approved AFM or AFMS against the equipment required by AC 120-29 for the kinds of proposed CAT II operations.

b) Enter into Table 1 of OpSpec/MSpec/LOA C059 all additional equipment for the M/M/S and kind(s) of CAT II operations authorized. Include additional equipment required by any of the following (current editions):

- AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach,
- TC or STC, and
- FAA Order 8400.13, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations.

c) If the AFM or AFMS describes acceptable performance both with and without certain items of equipment (that are not explicitly required by AC 120-29), it must be determined how the operator/program manager intends to conduct CAT II operations and train flightcrews with those items of equipment. If the operator/program manager proposes to conduct operations both with and without certain equipment (such as autothrottle, autopilot), flightcrews must be trained for both situations and the equipment does not need to be listed in Table 1 of OpSpec/MSpec/LOA C059.

2) Operational Demonstration of Equipment Eligibility. This method is used when equipment eligibility is not stated in the AFM, the AFMS, or the Flight Standardization Board (FSB) report. The operational demonstration method is only appropriate for airplanes and equipment that do not have CAT II reflected in the TC or STC. If the operational demonstration method is used:

a) Conduct the operational demonstration as described in AC 120-29. A part 121, 125, or 135 operator, or a part 91K program manager should request that its Flight Standards District Office (FSDO) provide assistance in the eligibility assessment.

b) The operator or program manager should provide the FSDO with the aircraft make, model, and serial number; any evidence of instrument flight rules (IFR) approach approval; and pertinent information from flightcrew operating procedures.

c) If the FSDO cannot determine equipment eligibility from the provided documentation (e.g., TC, STC, or AFM), it should forward the request and supporting data through its RFSD to the appropriate Aircraft Evaluation Group (AEG). The AEG will verify that the aircraft, its landing system, and equipment meet the criteria for CAT II operations, and that the system can safely fly the CAT II approach procedures. The AEG will provide written

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documentation (e.g., amended FSB report or other official documentation) to verify the eligibility of that equipment.

d) The equipment determined by an operational demonstration to be eligible and required to conduct either manually or automatically flown CAT II operations should be listed in Table 1.

E. Specify the Approach/Landing System in Table 1 of OpSpec/MSpec C059. The kind of CAT II approach/landing system (manual head-up display (HUD), i.e., manual control using a HUD to touchdown; autopilot, i.e., approach coupler used to DH, followed by manual control landing; or autoland) must be specified for each airplane listed in Table 1 of OpSpec/MSpec/LOA C059. The principal operations inspector (POI) will select the appropriate phrase to place in the Approach/Landing System column: Manual (HUD), Autopilot, or Autoland.

F. Operational RVR Minimums. Table 2 in OpSpec/MSpec/LOA C059, shown as Table 3-18, Example of Category II Runway Visual Range Minimums, below, is a summary of the required RVR minimums for each type of CAT II operation.

1) Row 1 of Table 3-18 shows that for Standard CAT II operations at 1600 RVR, only the touchdown RVR report is required. During the 6-month Operator Use Suitability Demonstration, 1600 RVR is commonly authorized for new CAT II operators. Also, if the rollout RVR is out of service, CAT II approaches may still be flown to 1600 RVR. Note, the intention of this requirement is not that rollout and mid RVR reports may be ignored and CAT II approaches may still be flown to 1600 RVR. If these reports are available, minimum RVR values shown in the lower rows of Table 3-18 must be used (i.e., if mid or rollout RVR reports are available, they must be equal to or greater than the values shown in the lower rows of Table 3-18.).

2) Rows 2–4 of Table 3-18 show the TDZ RVR requirements for other, lower visibility CAT II operations. While TDZ RVR report requirements remain unchanged, mid and rollout RVR report requirements are new as of May 2013. Mid RVR equal to 600 and rollout RVR equal to 300 are the lowest values that may be reported to conduct Standard CAT II, CAT II to 1000 RVR (TDZ), or Special Authorization (SA) CAT II operations. All available RVR reports are now controlling, and a TDZ and rollout report are required in order to conduct CAT II operations below 1600 RVR. If the rollout report is not available, the mid or far-end report may be substituted. Midfield reports substituted for unavailable rollout reports must report 600 RVR or greater; far-end reports substituted for unavailable rollout reports must report 300 RVR or greater.

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Table 3-18. Example of Category II Runway Visual Range Minimums

CAT II RVR Minimums			
Type of Operation	**TDZ RVR**	**Mid RVR**	**Rollout RVR**
Standard CAT II	1600 (500 m)	NR	NR
Standard CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)
CAT II to 1000 RVR	1000 (300 m)	600 (175 m)#	300 (75 m)
Special Authorization CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)

NOTE: NR = Not Required; # = If available.

G. Runway Field Length Requirements.

1) For all CAT II operations, the required field length (determined prior to takeoff) is at least 1.15 times the field length required by:

- Part 91K, § 91.1037(b) and the AFM,
- Part 121, § 121.195(b),
- The AFM for parts 91 and 125, or
- Part 135, § 135.385(b).

2) Once airborne, additional consideration of CAT II landing field length by the flightcrew is not required for normal operations. If unforecasted adverse weather or failures occur, the crew and aircraft dispatchers should consider any adverse consequences that may result from a decision to make a CAT II landing. The runway length needed in these changed circumstances must be determined considering the runway in use, runway conditions, current weather, AFM limitations, operational procedures, and aircraft equipment status at the time of landing.

3) Runway field length requirements for parts 121 and 135 are no longer contained in OpSpec C059. **They have been moved to OpSpec C054, and any part 121 or 135 operators issued OpSpec C059 *must* also be issued OpSpec C054.**

H. Airplane Maintenance. For CAT II authorization, the operator or program manager must have an approved LLM maintenance program, as described in subparagraph B5). The maintenance program should detail a specific maintenance interval, periodic tests, and inspections required on systems and equipment used for LLM. The maintenance program should identify or contain system and equipment reliability tracking methods derived from 14 CFR part 119 requirements.

I. Flightcrew Qualifications. A pilot in command (PIC) who has not met the requirements of part 91, § 91.1039(c), part 121, § 121.652, part 125, § 125.379, or part 135, § 135.225(e), as appropriate, must use the high minimum pilot RVR landing minimum equivalents, as determined from the table in OpSpec/MSpec/LOA C054. For the PIC to conduct the part 121 CAT II operations at the lower authorized minimums, he or she must have currently

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accumulated the hours required by § 121.652 in the aircraft type that he or she will fly for that carrier. The provision of Air Transport Association of America (A4A) Exemption 5549 for part 121 air carriers may also apply.

J. Authorized CAT II Approach and Landing Minimums. To determine the applicable minimums for an approach, the pilot must first compare the DH shown on the 14 CFR part 97 approach chart with the operator's lowest authorized DH for the airplane being flown. The higher minimum is applicable. Therefore, considering RVR sensor reports available, the RVR to be used for the approach is the highest RVR value in the approach chart, Table 1, or subparagraph f of the OpSpec/MSpec part 125 LOA or subparagraph 6 of the part 91 LOA.

K. Authorized CAT II Approaches, Airports, and Runways.

1) CAT II Operations. If the airport and runways are approved for CAT II operations in part 97, they should not be routinely listed in OpSpec/MSpec/LOA C059 unless the POI determines there is a need to specify a special limitation for an operator at a particular airport.

a) Standard CAT II approaches are published as CAT II procedures in the National Aeronautical Navigation Services (AeroNav Services), Air Traffic Products and Publications Group, instrument approach procedure (IAP) Flight Information Publication (FLIP). They are identified by the procedure name "ILS RWY 16C (CAT II)" and by the note in the minimums section stating "CATEGORY II ILS—SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED."

b) Special Authorization (SA) CAT II (formerly called reduced-lighting CAT II) approaches are published by AeroNav Services with the identifier "(SA CAT II)," and they also have a note in the Procedure Notes section stating "Reduced Lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of Autoland or HUD to touchdown." Some SA CAT II approaches were published without the "(SA CAT II)" identifier, but will have the same or similar note.

2) Standard CAT II. The operator may be authorized for up to three different minimums for use with published part 97 approaches: 1600 RVR, 1200 RVR, and 1000 RVR. Allowable minimums depend on the availability of RVR sensors and availability and use of required airplane equipment.

a) Minimums of TDZ 1600 RVR and TDZ 1200 RVR require the flightcrew to use an approach coupler or to fly at least to DH under manual control using a HUD for flight guidance. A manually flown landing is assumed and need not be specified. Autoland or HUD-to-touchdown operations for Standard CAT II may be authorized if the operators are also authorized OpSpec/MSpec/LOA C061 or C062.

b) Minimums of 1000 RVR require the flightcrew to use autoland or to fly under manual control using a HUD to touchdown.

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1. For operations to touchdown, the airplane and its automatic flight control guidance system (AFCGS), autoland system, or manually flown guidance system (HUD), are approved for approach and landing operations as specified by AC 120-29.

2. For manual control using a HUD to touchdown, the HUD must be flown in the AIII Approach mode.

3. The flightcrew has been trained at the lower visibilities before they can be authorized. If the flightcrew is currently authorized CAT III operations, no further training is required for this authorization in C059.

c) CAT II operations, with a DH of 100 feet and 1000 RVR (300 meters), may be authorized at certain foreign airports. Table 3-19, Example List of Authorized Foreign Airports and Runways for Category II Instrument Approach and Landing Operations, illustrates an example for listing authorized foreign airports and runways.

Table 3-19. Example List of Authorized Foreign Airports and Runways for Category II Instrument Approach and Landing Operations

Airport Name/Identifier	Runways	Limitations and Provisions
Mirabel, Canada CYMX	06	NA
Taipei— Chiang Kai Shek, Taiwan RCTP	10, 28	NA
Tokyo Narita, Japan RJAA	16	NA
Athens, Greece Eleftherios Venizelos LGAV	03L 03R 21L 21R	RVR 350 m

Refer to Table 3 in OpSpec C059.

d) Operators authorized SA CAT II, as described in subparagraph K3) below, may also be authorized to conduct approaches to standard CAT II facilities when the TDZ and/or centerline (CL) lights are inoperative. They must comply with all requirements in paragraph K3), using minimums appropriate to the RVR available and using autoland or manual (HUD) to touchdown.

3) SA CAT II. In addition to the standard CAT II operations authorized by OpSpec/MSpec/LOA C059, SA CAT II operations can be authorized to qualifying runways that do not meet the performance or ground equipment requirements normally associated with a compliant CAT II operation (e.g., TDZ lighting, CL lighting, or Approach Lighting System with Sequenced Flashing Lights (ALSF) 1 and 2).

a) Approval criteria for SA CAT II approaches are given in FAA Order 8400.13. The instrument landing system (ILS) facilities used are CAT I ILS installations that meet the glideslope (GS) and localizer signal quality requirements of CAT II facilities. The required

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increase in aircraft capabilities of HUD or autoland to touchdown mitigates the reduced-lighting requirements.

b) RVR requirements and available minimums are the same as standard CAT II and in accordance with Table 3-18, but these minimums require the flightcrew to use autoland or to fly under manual control using a HUD to touchdown.

c) Aircraft operation approval, HUD usage, and flightcrew training requirements are the same as for standard CAT II to 1000 RVR.

4) Lists. The lists "Foreign Facilities Approved for Category II/III Operations," "Restricted U.S. Facilities Approved for Category II/III Operations," and "U.S. Runways Approved for Special Authorization CAT II Operations" are located on the Flight Operations Branch (AFS-410) website at: http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410/status_lists/.

NOTE: CAT II or III approaches in foreign states at airports that are controlled by the U.S. Department of Defense (DOD) and that meet FAA CAT II/III criteria do not need to be included on the approved foreign facilities list and do not need to be listed in Table 3 of OpSpec/MSpec/LOA C059.

L. Missed Approach Requirements. The missed approach decision point has been changed from 1,000 feet above touchdown to the final approach fix (FAF). After passing the FAF, if the required visual landing references are not acquired and any failure of required equipment occurs, or if the primary guidance system in use (autopilot/autoland or HUD) is disengaged or disabled for any reason, the flightcrew must execute the missed approach. The exception to this requirement is that if both guidance systems are properly briefed and engaged before reaching the FAF and one system is disengaged or fails inside the FAF, the remaining guidance system is considered the primary and the approach may be continued.

M. CAT II Runway Restrictions. The requirement to conduct automatic landings in reduced lighting and 1,000 RVR operations implies that autoland restrictions imposed by prethreshold terrain must be considered. Approaches that have prethreshold terrain characteristics that may cause abnormal performance in flight control systems will have a note on the approach chart requiring a special autoland evaluation. Approved runways will be on the AFS-410 restricted facilities list in subparagraph K4) above, and must be listed in Table 4 of OpSpec/MSpec/LOA C059.

N. SA CAT I for Part 91. The part 91 LOA contains selectable text that authorizes SA CAT I ILS approaches to runways without TDZ or runway centerline (RCL) lights with a radar altimeter (RA) DH as low as 150 feet and a visibility minimum as low as RVR 1400 when using a HUD to DH. This selectable text is only available in the part 91 LOA. SA CAT I authorization for operators under other 14 CFR parts is available in OpSpec/MSpec/LOA C052. The operator must meet *all* of the following requirements:

1) Aircraft Requirements. To be approved for SA CAT I, each airplane must be certified and maintained for CAT II operations. Those airplanes and equipment must be listed in

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Table 1 of OpSpec C059. The authorized airplane(s) must be equipped with a HUD that is approved for CAT II or CAT III operations.

2) Training Requirements. The flightcrew must be current and qualified for CAT II operations. The flightcrew must demonstrate proficiency in ILS approaches and landings to this minimum or to a lower minimum using the HUD prior to commencing any SA CAT I operations. This requirement applies both to initial eligibility for SA CAT I as well as recurrent training.

3) Operational Requirements.

a) The flightcrew must use the HUD to DH in a mode used for CAT II or CAT III operations. This mode provides greater lateral and vertical flightpath accuracy and more sensitive alarm limits.

b) The flightcrew must use the HUD to DH, or to the initiation of missed approach, unless adequate visual references with the runway environment are established that allow safe continuation to a landing. Should the HUD malfunction during the approach, the flightcrew must execute a missed approach unless visual reference to the runway environment has been established.

c) The crosswind component on the landing runway must be less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

d) The part 97 Standard Instrument Approach Procedure (SIAP) must have a published SA CAT I minimum.

e) Unlike other CAT I approaches, the mid-RVR report may *not* be substituted for the TDZ RVR report when using SA CAT I minima.

f) Single-pilot operators are prohibited from using SA CAT I landing minima.

OPSPEC/MSPEC/LOA C060—CATEGORY (CAT) III INSTRUMENT APPROACH AND LANDING OPERATIONS.

NOTE: NextGen Tracking. Applications for approvals for this paragraph must be entered in the Regional NextGen Tracker as indicated in the General Procedures Section (Volume 3, Chapter 1, Section 1).

A. General. Category (CAT) III is an optional authorization. The following issuances are required for authorizing CAT III operations: OpSpec C060 for 14 CFR parts 121, 125, 121/135, and 135; MSpec C060 for 14 CFR part 91 subpart K (part 91K); and LOA C060 for parts 91 and 125M. For 14 CFR part 129 operations, see Volume 12, Chapter 2.

1) CAT III operations are evaluated in accordance with the current edition of Advisory Circular (AC) 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout.

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2) The initial CAT III authorization must be coordinated through the regional Flight Standards division (RFSD) Next Generation (NextGen) branch (see Volume 4, Chapter 2).

3) RFSD NextGen branch concurrence is also required before amending OpSpec/MSpec/LOA C060 to include an additional airplane make, model, and series (M/M/S) for an operator.

4) All reductions in CAT III operating minimums for each operator and aircraft also require RFSD NextGen Branch concurrence.

5) Initial CAT III authorizations may require the operator to use higher minimums for a period of time or number of operations. The principal operations inspector (POI) should issue an initial, interim authorization using the higher minimums, and reissue OpSpec/MSpec/LOA C060 authorizing lower minimums upon completion of the approval demonstration phases as shown in Volume 4, Chapter 2, Section 2, paragraph 4-194.

B. Applicability. The authorization is applicable to operations conducted by:

- Part 121 certificate holders,
- Part 125 certificate holders,
- Part 135 certificate holders,
- Part 121/135 certificate holders,
- Part 91K program managers,
- Part 91 operators, and
- Part 125M operators/companies.

C. Airplanes Approved for CAT III Operations. Airplanes with an approved Aircraft Flight Manual (AFM) entry authorizing CAT III may be approved for CAT III. In accordance with the AFM, CAT III operations may be conducted with either fail operational (FO) or fail passive (FP) systems. Table 3-20, Fail Operational Landing Systems, and Table 3-21, Fail Passive Landing Systems, classify all CAT III landing and rollout systems as either FP or FO and show the associated lowest Runway Visual Range (RVR) minimums. The type of landing and rollout system is specified (listed) in Table 1 (see Figure 3-67F, Example OpSpec/MSpec/LOA C060, Table 1) for each airplane M/M/S.

1) Each airplane type M/M/S and the equipment authorized to conduct CAT III operations must be listed in Table 1 (see Figure 3-67F). In order to select an operator's M/M/S in OpSpec/MSpec/LOA C060, Table 1, ensure that "CAT III" is selected under "Authorizations" on the "Edit Aircraft" page of "Operator Data." Aircraft (including wide-body aircraft such as the DC-10, L-1011, and B-747, which are authorized for FO CAT III, but which have not been demonstrated to meet the FP provisions of AC 120-28, Appendix 3) may be approved for FP operations with landing minimums of RVR 1000. (See AC 120-28 for further details.)

2) The equipment required to conduct CAT III operations is established in accordance with the applicable 14 CFR parts, the approved AFM, and AC 120-28.

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a) The only acceptable method of demonstrating that an airplane is Airworthy for CAT III operations is through a type design approval obtained by a manufacturer.

b) The approved AFM (or Aircraft Flight Manual Supplement (AFMS)) for airplanes that have CAT III type design approval contains a statement to the effect that the airborne systems have demonstrated the reliability and redundancy necessary for CAT III operations in accordance with AC 120-28.

c) The AFM also specifies that certain equipment is required for airworthiness approval of the various kinds of CAT III operations.

d) Some AFMs also indicate that acceptable CAT III performance was demonstrated both with and without ("w/wo") certain equipment (for example, "autothrottles w/wo"). AC 120-28 also specifies that certain types of equipment are required for operational approval of the various kinds of CAT III operations. Therefore, both the approved AFM and AC 120-28 must be considered in determining the additional equipment that must be listed in Table 1 (see Figure 3-67F).

3) Equipment that is explicitly required by the airplane certification regulations (14 CFR parts 23 and 25), the operating regulations (parts 91, 121, 125, and 135), and/or the approved AFM should not be listed in Table 1 (see Figure 3-67F).

a) Additional equipment that must be listed in Table 1 (see Figure 3-67F) is determined by cross-checking the types of equipment required by AC 120-28 for the kind(s) of CAT III operations proposed against the equipment required by the regulations and the approved AFM.

b) Also, the equipment required by the guidance and direction in the RFSD NextGen branch concurrence letter is listed in Table 1 (see Figure 3-67F) as additional equipment.

c) The standard text of OpSpec/MSpec/LOA C060 requires this equipment to be installed and operational.

4) When the AFM indicates acceptable performance, both with and without certain items of equipment (that are not explicitly required by AC 120-28 or the RFSD NextGen branch concurrence letter), it must be determined how the operator intends to conduct CAT III operations and train flightcrews with those items of equipment.

a) If the operator proposes to conduct operations both with and without certain equipment (such as autothrottle), the operator must train flightcrews for both situations, and the item of equipment does not need to be listed in OpSpec/MSpec/LOA C060.

b) If the operator proposes to conduct operations only when those items of equipment (with and without) are functional, then those items of equipment must be listed in OpSpec/MSpec/LOA C060.

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5) The authorizations for a decision height (DH)/alert height (AH), the lowest RVR (see subparagraph I), and the FP/FO landing systems must be specific for each airplane type. In general, Tables 3-20 and 3-21 summarize RVR and other requirements for different landing and rollout systems.

Table 3-20. Fail Operational Landing Systems

Fail Operational Landing Systems—General 1. Utilize an AH (typically 50 ft). 2. Must go-around if any system failure occurs above AH. 3. Could land safely if a failure occurs after AH.		
Fail Operational Without a Rollout System	**Fail Operational with a Fail Passive Rollout System**	**Fail Operational with a Fail Operational Rollout System**
1. No visual necessary. 2. Lowest allowable RVR 600/600/300.	1. No visual necessary. 2. Lowest allowable RVR 400/400/300.	1. No visual necessary. 2. Lowest allowable RVR 300/300/300.

Table 3-21. Fail Passive Landing Systems

Fail Passive Landing Systems—General 1. Utilize a DH (no less than 50 ft). 2. Must have visual references NLT DH to land, otherwise missed approach. 3. System not capable of autoland if a failure occurs after DH. 4. If visual references are lost after DH or a failure after DH (prior to touchdown), missed approach.	
Fail Passive Without a Rollout System	**Fail Passive with a Fail Passive or Fail Operational Rollout System**
Lowest allowable RVR 600/600/300.	Lowest allowable RVR 600/400/300.

D. Runway Field Length Requirements.

1) For all CAT III operations, the required field length (determined prior to takeoff) is at least 1.15 times the field length required by:

- Part 91K, § 91.1037(b) and the AFM,
- Part 121, § 121.195(b),
- The AFM for parts 91 and 125, or
- Part 135, § 135.385(b).

2) Once airborne, additional consideration of CAT III landing field length by the flightcrew is not required for normal operations. If unforecasted adverse weather or failures occur, the crew and aircraft dispatchers should consider any adverse consequences that may result from a decision to make a CAT III landing. The runway length needed in these changed

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circumstances must be determined considering the runway in use, runway conditions, current weather, AFM limitations, operational procedures, and aircraft equipment status at the time of landing.

3) Runway field length requirements for parts 121 and 135 are no longer contained in OpSpec C060. **They have been moved to OpSpec C054, and any part 121 or 135 operators issued OpSpec C060 *must* also be issued OpSpec C054.**

4) The "Special Operational Equipment and Limitations" column in Table 1 (see Figure 3-67F) is provided for equipment that is *in addition* to that required by 14 CFR and not included in the AFM. For example, additional equipment may be required to meet the field length requirement where "procedural" means alone is not acceptable.

E. Operators Authorized for CAT IIIa (RVR 700) Operations Can be Approved for RVR 600. Some aircraft were certified in the AFM for CAT IIIa operations. These operations are limited by regulation to no lower than RVR 700. If the AFM or AFMS also contains a statement that the CAT III systems are FP or have been demonstrated to meet the airworthiness criteria of AC 120-28 for FP systems, the aircraft may be approved for operations no lower than RVR 600. Most CAT III operations authorized for RVR 700 prior to issuance of AC 120-28 are now eligible for authorization to RVR 600, upon request of the operator for issuance of a revision to that operator's pertinent OpSpecs. Operators authorized RVR 700 may be approved for RVR 600/600/300 or RVR 600/400/300 operations in accordance with Table 3-21 when:

1) The AFM or AFMS contains a statement that the aircraft systems are FP.

2) The operator has incorporated changes reflecting RVR 600 into the approved training program (when applicable), bulletins, aircraft placards, etc., as appropriate.

3) A check airman or an FAA inspector has certified the flightcrews to fly to these reduced minimums.

F. Approval for RVR 600. An operator currently using RVR 600 or lower in its approved training for FP operations may be approved for RVR 600 without further checking. Approval may be given when the operator has updated the approved training program (when applicable) and flightcrew bulletins to reflect the RVR 600 authorization.

G. CAT III Approach and Landing Minimums. Figure 3-67F is an example of Table 1 with data inserted. If an operator is not authorized to conduct those kinds of CAT III operations with a particular airplane, or if the operator does not need special operational equipment, put "NA" under the appropriate column (do not delete or leave any cells blank).

NOTE: Include only the equipment that is not explicitly required by the regulations and/or the AFM. For new CAT III operators, inspectors must coordinate the operational equipment requirements with the RFSD NextGen branch during normal review processing.

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Figure 3-67F. Example OpSpec/MSpec/LOA C060, Table 1

Airplane M/M/S	Landing System*	Rollout System*	DH/AH	TDZ/Mid/RO RVR	Special Operational Equipment and Limitations
B-737-232	FP	NA	50 DH	600/600/300	NA
B-737-35B	FP	NA	50 DH	600/600/300	Either autoland or HGS must be operable
B-737-832	FP	NA	50 DH	600/600/300	Either autoland or HGS must be operable.
A-320-214	FO	FO	100 AH	300/300/300	NA
B-737-400	FP	FP	50 DH	600/400/300	1. Two EADI displays (EFI switch in NORMAL). 2. First Officer Flight Director Display. 3. Operational antiskid. 4. Cockpit LWMP status placard indicating CAT IIIa HGS capable.
B-747-47UF	FO	FO	100 AH	300/300/300	Antiskid and thrust reverser system must be fully operative for operations below RVR 600.
DASAULT FALCON-900EX	FP	FP	50	600/600/300	NA
B-757-225	FO	FO	50AH	300/300/300	1.30 required if thrust reverser or antiskid inoperative below RVR 600.
B-727-277	FP	NA	DH 50	600/600/300	NA
B-757-236	FO	FO	50 AH	300/300/300	NA
B-767-222	FO	FO	100 AH	300/300/300	Use 1.3 if autobrake is inoperative.
A319-112	FO	FO	100 AH	300/300/300	1.30 required if thrust reverser or antiskid inoperative below RVR 600.

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Airplane M/M/S	Landing System*	Rollout System*	DH/AH	TDZ/Mid/RO RVR	Special Operational Equipment and Limitations
B-777-236	FO	FO	50AH	300/300/300	NA
DC-10-10F	FO	FO	100 AH	300/300/300	Ground speed indicating system.
MD-11F	FO	FO	100 AH	300/300/300	Ground speed indicating system.

NOTE: Enter: "NA" for not applicable; "FP" for FP landing or rollout control system; and "FO" for FO landing or rollout control system (i.e., "FP/FO" systems include autoland and head-up display (HUD) guidance systems (also referred to as Head-Up-Guidance Systems (HGS))).

H. Additional Information. Some European Aviation Safety Agency (EASA) Member States apply a DH (as opposed to an AH) to operations at or below RVR 600 because of instrument landing system (ILS) facility integrity concerns.

I. Required RVR Reporting Equipment. The RVR reporting equipment authorizations were expanded to enable the use of new and more robust EASA approval and AC 120-28 certification criteria for autoflight or a guidance landing system(s) with FP rollout control or flight guidance landing systems. A summary of these authorizations is shown in Figure 3-67G, OpSpec/MSpec/LOA C060, Table 2.

1) OpSpec/MSpec/LOA C060 allows touchdown RVR 600; mid RVR 400; rollout RVR 300 (600/400/300) for appropriate FP landing and FP or FO rollout systems; and RVR 400/400/300 for FO landing systems with FP rollout control or flight guidance (HUD) landing systems.

2) Note that to use the touchdown RVR 600 with mid RVR 400 and rollout RVR 300, a published runway landing minimum of RVR 400 or lower is required—that is, mid RVR 400 and rollout RVR 300 cannot be used at runways where RVR 600 is the lowest published RVR minimum.

3) RVR 300/300/300 is allowed for FO landing systems with FO rollout control or flight guidance (HUD) landing systems.

4) The operator or program manager is not authorized to conduct operations using an RVR lower than the published minimums at any runway (domestic or foreign), even if the operator or program manager is authorized to conduct CAT III operations at a lower RVR than is published for that approach.

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Figure 3-67G. OpSpec/MSpec/LOA C060, Table 2

Landing System	Rollout System	TDZ RVR	Mid RVR	Rollout RVR
FP or FO	None	600 (175 m)	600 (175 m)	300 (75 m)
FP	FP or FO	600 (175 m)	400 (125 m)	300 (75 m)
FO	FP	400 (125 m)	400 (125 m)	300 (75 m)
FO	FO	300 (75 m)	300 (75 m)	300 (75 m)

J. Crosswind Limitations. The crosswind component on the landing runway must be 15 knots or less, unless the AFM's crosswind limitations are more restrictive. This should be reflected in the approved training program and flightcrew bulletins.

K. Authorized CAT III Airports and Runways. With the issuance of OpSpec/MSpec/LOA C060, the operator/program manager is authorized to conduct CAT III operations at all domestic airports and runways using an approved 14 CFR part 97 CAT III instrument approach procedure (IAP), unless the runway is on the Flight Technologies and Procedures Division's (AFS-400) Restricted U.S. Facilities Approved for Special Authorization Category II & Category III Operations list (http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410/status_lists), or unless a restrictive Notice to Airmen (NOTAM) is issued for that approach. Domestic airports and runways that have no restrictions do not have to be individually listed in OpSpec/MSpec/LOA C060. All foreign airports and runways approved for CAT III operations and restricted U.S. airports and runways approved for CAT III operations must be specifically identified and listed in OpSpec/MSpec/LOA C060, Tables 3 and 4, respectively. The list of approved foreign CAT III airports and runways can be found at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410/status_lists.

1) Foreign Airports and Runways. CAT III operations may be authorized at the foreign airports and runways listed in Table 3 (see Figure 3-67H, Example OpSpec/MSpec/LOA C060, Table 3) from the selection list provided for in Table 3.

2) U.S. Facilities with Restrictions or Conditions. The U.S. ILS facilities provided in Table 4 (see Figure 3-67I, Example OpSpec/MSpec/LOA C060, Table 4) are approved for CAT III operations only for the specific aircraft listed. The characteristics of the prethreshold terrain, runway touchdown zone (TDZ) slope, or steep glideslope (GS) at these facilities may cause abnormal performance in flight control systems. Additional analysis and/or flight demonstrations are typically required for each aircraft type before approval of CAT III minimums at each runway. Publication of a part 97 Standard Instrument Approach Procedure (SIAP) or additional operators and their aircraft may be approved by the regional NextGen branch as provided in AC 120-28, Appendix 8. Approved aircraft are equipped with either autoland or HUD flight guidance equipment. The restrictions at U.S. facilities for the certificate holder are provided as selectables for listing in Table 4.

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Figure 3-67H. Example OpSpec/MSpec/LOA C060, Table 3

Foreign Airports and Runways Approved for CAT III Operations	
Airport Name/Identifier & Runway(s)	**Special Limitations**
London/Gatwick, England; EGKK; 8R/26L	None
Luxembourg, Luxembourg; ELLX; 24	None
Madrid/Barajas, Spain; LEMD; 18L/18R/33L/33R	None
Almaty, Kazakhstan; UAAA; 23R	None

Figure 3-67I. Example OpSpec/MSpec/LOA C060, Table 4

Runway and Aircraft Restrictions and Limiting Conditions for Part 97 CAT III Operations	
Airport Name/Identifier, Runway(s) & CAT III Minimums	**Restrictions & Limitations**
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10L; RVR 300	Aircraft approved: A319, A320, B-757, and B-767
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10R; RVR 600 and RVR 300	Restricted to 600 RVR until less-than 600 RVR SMGCS operations are approved. Aircraft approved RVR 600: B-757 and B-767. Aircraft approved RVR 300: A319 and A320.

L. Inoperative Lights. If CAT III operations are planned at a runway, but TDZ and/or centerline (CL) lights are inoperative, CAT II operations may be conducted if weather permits and the operator has the authorization described below in OpSpec/MSpec/LOA C059. OpSpec/MSpec/LOA C059 authorizes specific CAT II minimums for part 97 CAT II approaches when the TDZ and centerline lights are inoperative. These CAT II minimums (RVR 1200) are authorized under the selectable subparagraph g(2) in OpSpec/MSpec/LOA C059, and are the lowest minimums available to a runway with inoperative TDZ and/or centerline lights.

M. Lower Landing Minimums Maintenance Program. The operator/program manager must maintain the aircraft and equipment listed in Table 1 (see Figure 3-67F) in accordance with its approved Lower Landing Minimums (LLM) maintenance program or inspection program, as applicable.

N. Engine-Inoperative Operations. The operator may be authorized for engine-inoperative CAT III operations in accordance with the AFM and AC 120-28. Airplane M/M/S, operational requirements, and limitations must be listed in Table 5 (see Figure 3-67J, Example OpSpec/MSpec C060, Table 5 (LOA C060, Table 6)).

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1) With preplanned engine-inoperative CAT III capability, airports and minimums that otherwise may not be considered acceptable for use could be selected by the pilot or operator without having to subsequently justify its use based on emergency authority. This capability also has the advantage of allowing for full preassessment of the aircraft capability and engine inoperative aircraft configurations (e.g., flap settings, electrical system capability, hydraulic system capability, etc.), approach procedure characteristics, missed approach performance, and other factors that may be difficult to assess in real time if not previously assessed.

2) This capability can also permit an operator some additional flexibility in selecting alternate airports. Authorization to use CAT III alternate airport weather minimums is given in OpSpec C055, and should be based on the authorization in Table 5 (see Figure 3-67J).

3) Authorization to conduct engine-inoperative CAT III operations is based on the AFM and approved operator procedures and training. AC 120-28 describes in detail the requirements and considerations necessary for authorization. These include aircraft performance, configuration and systems requirements, crew training (if applicable), and dispatcher and crew preflight and en route planning and decisionmaking.

4) Operational authorizations are in accordance with AC 120-28. With preflight planning authorization, the operator may consider engine-inoperative CAT III capability in planning flights for a takeoff alternate, en route (Extended Operations (ETOPS) or Extended-Range Operations (ER-OPS)) alternate, redispatch alternate, destination, or destination alternate. With landing after engine failure en route authorization, the operator may initiate an engine-inoperative CAT III approach under the conditions specified in AC 120-28. With landing after engine failure during approach authorization, the operator may continue a CAT III approach after passing the final approach fix (FAF), unless required by the AFM to discontinue the approach in order to reconfigure the aircraft.

Figure 3-67J. Example OpSpec/MSpec C060, Table 5 (LOA C060, Table 6)

Engine Inoperative CAT III Operations		
Airplane M/M/S	**Operational Authorization**	**Limitations**
B-777	Preflight planning. Landing after engine failure en route. Landing after engine failure during approach.	Flaps 20 or 30. Minimum TCH: 40 feet.
B-747	Preflight planning. Landing after engine failure en route.	Flaps 25 or 30. Minimum TCH: 42 feet. Rudder trim or manual control required until below 1500 feet RA with LAND 3. 5-kt crosswind limit with rudder ratio system inoperative and engine inoperative.

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O. Nonstandard Requests. All requests for operational nonstandard OpSpec/MSpec/LOA authorizations must be submitted to the Air Transportation Division (AFS-200) using the nonstandard request policy outlined in Volume 3, Chapter 18, Section 2, paragraph 3-713.

OPSPEC/MSPEC/LOA C061—FLIGHT CONTROL GUIDANCE SYSTEMS FOR AUTOMATIC LANDING OPERATIONS OTHER THAN CATEGORIES II AND III.

A. General. OpSpec/MSpec C061 authorizes an operator to use a flight control guidance system with automatic landing capabilities to touchdown. Title 14 CFR part 121, § 121.579(f); part 125, § 125.329(f); and part 135, § 135.93(f) specify that this type of operation must be authorized by an OpSpec. A 14 CFR part 91K program manager is issued MSpec C061, if applicable. Before issuing C061, the principal operations inspector (POI) must determine the following:

1) The Aircraft Flight Manual (AFM) permits use of the flight control guidance system (autoland system) to touchdown.

2) Training on the use of the flight control guidance system and autoland procedures to touchdown is provided to flightcrew members.

3) The operator continually maintains flight control guidance and autoland systems in accordance with an approved maintenance program for autoland operations.

NOTE: The current edition of Federal Aviation Administration (FAA) Order 8400.13, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, also provides credit for other-than-standard Category II (CAT II) minimums using an autoland system to touchdown.

B. Listing Flight Control Guidance Systems. The airplanes (make/model) and the flight control guidance systems (manufacturer/model) authorized for this type of operation must be listed in C061a.

C. Exceptions to Issuance of C061. When the autoland system is not used to touchdown on a Category I (CAT I) instrument landing system (ILS), C061 is not required to be issued.

D. Additional Information. The current edition of Advisory Circular (AC) 120-67, Criteria for Operational Approval of Auto Flight Guidance Systems, provides additional information.

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OPSPEC/MSPEC/LOA C062—MANUALLY FLOWN FLIGHT CONTROL GUIDANCE SYSTEM CERTIFIED FOR LANDING OPERATIONS OTHER THAN CATEGORIES II AND III.

A. General. OpSpec/MSpec C062 is optional for 14 CFR parts 91K, 121, 125, and 135 operations to authorize operators to use manually flown flight control guidance systems to conduct approach and landing operations to fly a Category I (CAT I) instrument landing system (ILS) using a Head Up Display (HUD). C062 is issued to use an HUD just as C061 is issued to use an autoland system for other than Category II (CAT II) or Category III (CAT III) operations.

1) This authorization is independent of CAT II/III authorizations. Typically, this authorization is issued prior to CAT II/III authorizations and is kept after the issuance of CAT II/III authorizations.

2) The current edition of Federal Aviation Administration (FAA) Order 8400.13, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, also provides credit for lower-than-standard CAT I minimums using HUD to touchdown.

3) It is required to list series of aircraft in addition to make/model due to the distinct differences in series of models (especially in the newer aircraft). The aircraft listed must have a manual flight control guidance system installed and certified for manually flown landings (HUD).

B. Exceptions to Issuance of C062. When HUD guidance is not used to touchdown on a CAT I ILS, C062 is not required to be issued.

C. Requirements for Operators Conducting Operations in MD-11 Aircraft. National Transportation Safety Board (NTSB) safety recommendation A-99-40 recommends the FAA "issue a flight standards information bulletin that directs principal operations inspectors to ensure that MD-11 training programs provide simulator instruction in the proper procedure for autopilot disengagement and the subsequent manual control of the airplane." As a result, Flight Standards (AFS) recommends that principal operations inspectors (POI) ensure that each operator conducting operations in an MD-11:

1) Has included in its Company Flight Manual (CFM) information regarding the potential for pitch attitude upsets caused by improper operation of the autopilot and disseminate that information to each flightcrew member of the MD-11.

2) Has included simulator instruction in the proper operating procedure for autopilot disengagement and subsequent manual control of the airplane in its MD-11 initial, upgrade, recurrent, transition, and requalification training programs.

D. Helicopter Authorization. See OpSpec/MSpec H111, Manually Flown Flight Control Guidance System Certified for Landing Operations Other Than Categories II and III, for the helicopter equivalent of this authorization.

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OPSPEC/MSPEC/LOA C063—AREA NAVIGATION (RNAV) AND REQUIRED NAVIGATION PERFORMANCE (RNP) TERMINAL OPERATIONS.

A. General. The authorization provided by OpSpec/MSpec/LOA C063 is applicable to certificate holders/operators/program managers conducting operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. (For 14 CFR part 129, see Volume 12, Chapter 2, Section 5.)

1) OpSpec/MSpec/LOA C063 authorizes certificate holders/operators/program managers to conduct operations using 14 CFR part 97 U.S. instrument flight rules (IFR) terminal Area Navigation 1 (RNAV 1) and/or Required Navigation Performance 1 (RNP 1) departure procedures (DP) and RNAV 1 and/or RNP 1 Standard Terminal Arrival Routes (STAR) in the National Airspace System (NAS). This guidance addresses RNAV 1, RNP 1, and other RNAV flight operations. It also provides guidance authorization for certificate holders/operators/ program managers to conduct RNP 1 procedures that include Radius to Fix (RF) path terminators and Tailored Arrivals (TA). Part 91 operators do not need to obtain an LOA for RNAV 1 or RNP 1 operations.

2) The term “RNAV 1 DP” or “RNP 1 DP” includes Standard Instrument Departures (SID) and Obstacle Departure Procedures (ODP).

3) RNP 1 requires a Global Positioning System (GPS) and additional requirements for operating on procedures that contain RF legs, as outlined in the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace.

4) RF legs are an optional capability rather than a minimum requirement for RNP 1 operations. However, RF capability is required for Advanced RNP (A-RNP) certificate holders. For RNP 1 systems incorporating RF leg capability, the systems must comply with the requirements in AC 90-105, Appendices C, H, and I.

B. Determining Eligibility for RNP 1 and RNAV 1.

1) RNP Compliance. AC 90-105 provides the minimum criteria for RNP systems to operate on RNP routes and procedures. Manufacturers should evaluate their systems against these criteria and document the RNP capabilities as per guidance in AC 90-105.

2) Certificate holders/operators/program managers and pilots should use the guidance in AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, to determine their eligibility for domestic U.S. RNAV 1 terminal procedures. For the purpose of this authorization, “compliance” means meeting operational and functional performance criteria.

NOTE: Per AC 90-100 and AC 90-105, data suppliers and avionics data suppliers must have an LOA in accordance with the current edition of AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases. Operators must ensure that data supplier(s) are compliant. Aircraft/equipment with approval

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under AC 90-100 for use of GPS are approved under AC 90-105 for RNP operations.

3) RNAV 1 procedures require distance measuring equipment (DME)/DME/Inertial Reference Unit (IRU) sensors and/or GPS inputs. Due to gaps in the DME infrastructure of the NAS, RNAV 1 procedures require IRU sensor inputs to augment DME/DME, which is often referred to as DME/DME/IRU.

4) RNP 1 operations are based on GPS positioning and, if adequate coverage is available, DME/DME/IRU.

5) The certificate holder/operator/program manager is responsible for providing equipment eligibility documented by the Airplane Flight Manual (AFM) or other FAA-recognized means. If the operators are unable to determine that the aircraft is eligible, they must provide the following required documentation for RNAV 1 and/or RNP 1 terminal procedures to the certificate-holding district office (CHDO):

a) RNAV system make, model, and part number(s);

b) Evidence of compliance with AC 90-100 or AC 90-105 criteria;

c) Crew operating procedures;

d) Evidence of control of operation procedures;

e) Crew training program;

f) Evidence of control of navigation database processes; and

g) Any other pertinent information.

6) Based on the information supplied by the operator, the principal operations inspector (POI) must coordinate with the principal avionics inspector (PAI) to determine equipment eligibility. If unable to determine eligibility, contact the FAA Performance-Based Flight Systems Branch (AFS-470).

a) As described in the AC 90-100 and AC 90-105, the term “compliance” means meeting the operational and functional performance criteria. For the intended purpose of this policy, “compatible” means equipment and systems that perform their intended function and meet performance requirements for RNAV 1 and RNP 1 operations.

b) The PAI determines the proper nomenclature of the equipment manufacturer’s make, model, and software version, and verifies the RNAV equipment and system is installed in accordance with approved data and meets the criteria of the most recent version of AC 90-100 or AC 90-105. To ensure the proper configuration control of the approved RNAV operating system, it is required to list both the hardware and the software part numbers or version/revision numbers in Table 1 of OpSpec C063.

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c) If the CHDO is unable to determine equipment eligibility for RNAV 1 or RNP 1 DPs and STARs, contact AFS-470 for guidance.

7) Based on the information supplied by the certificate holder/operator/program manager, the POI must coordinate with the PAI to determine if the aircraft's system meets the performance and functionality requirements for RNP 1 operations. The equipment must not permit the flightcrew to select a procedure or route that is not supported by the equipment, either manually or automatically (e.g., a procedure is not supported if it incorporates an RF leg and the equipment does not provide RF leg capability).The system must also restrict pilot access to procedures requiring RF leg capability if the system can select the procedure, but the aircraft is not otherwise equipped (e.g., the aircraft does not have the required roll steering autopilot or flight director (FD) installed).

8) Some RNAV equipment and systems may not be able to perform multiple STAR runway transitions, sometimes known as route Type 3, because of database limitations. Operators of such RNAV systems must procure a tailored database and charts to allow the use of multiple runway transitions in order to qualify for RNAV 1 and/or RNP 1 approval.

9) After the POI and PAI agree that the certificate holder's/operator's/program manager's navigation equipment, procedures, and flightcrew training are eligible for authorization(s) in Table 1, the OpSpec/MSpec/LOA C063 template may be issued, indicating the appropriate bundled authorizations as follows:

- A-RNP, RNP 1, TA, RNAV 1;
- RNP 1, RF, TA, RNAV 1;
- RNP 1, RF, RNAV 1;
- RNP 1, TA, RNAV 1;
- RNP 1, RNAV 1; or
- RNAV 1.

10) Every effort should be made to bundle qualifications within the hierarchy of an OpSpec/MSpec/LOA where applicable and also combine other OpSpecs/MSpecs/LOAs as desired by qualified operators. (Refer to AC 90-105).

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Figure 3-67D. Sample C063 Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane	Compliant RNAV System(s) and Software			Navigation Specification(s)	Additional Capabilities	Limitation and Provisions
M/M/S	Manufacturer	Model/HW Part Number	Software Part/ Version/ Revision Number			
B-747-451	Honeywell Rockwell-Collins Honeywell Rockwell-Collins Rockwell-Collins Honeywell	FMC-4052508 FCGS-FCS-700 IRU-HG1050 DME-DME-700 MMR(GPS)-GLU-925 MMR(GPS)-RMA-55B		A-RNP/RNP 1/ TA/RNAV 1	FRT/TOAC	GPS Required
B-757-212	Honeywell Rockwell-Collins Honeywell Rockwell-Collins Honeywell Rockwell-Collins	FMC-4052506 FCGS-FCS-700 IRU-HG1050 DME-DME-700/ DME-900 DME-DMA-37B MMR(GPS)-GLU-920		RNP 1/RF/TA/ RNAV 1	FRT	GPS Required
A-320-212	Thales Thales Honeywell Rockwell-Collins Thales	FMGC-C13043 C13403 ADIRU-HG1150/ HG2030 DME-DME-700/ DME-900 MMR(GPS)-TLS755-01		RNP 1/RF/ RNAV 1	TOAC	
A-330-223	Thales Thales Honeywell Rockwell-Collins Thales	FMGEC-C12858 C12858 ADIRU-HG2030 DME-DME-900 MMR(GPS)-TLS755-01		RNP 1/TA/ RNAV 1		DME/DME Only
B-717-200	Honeywell Honeywell Honeywell Honeywell Honeywell	FMC-4081570 B717ACF ADIRU-HG2080 DME-DMA-37B MMR(GPS)–RMA-55B		RNP 1/ RNAV 1		
B-737-832	GE (Smiths) Honeywell Rockwell-Collins Honeywell Rockwell-Collins Rockwell-Collins	FMC-2907A4/2907C1 FCGS–SP-300 FCGS-EDFCS-730 ADIRU-HG2050 DME-DME-900 MMR(GPS)–GLU-920/ GLU-925		RNAV 1		

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11) A-RNP Authorization. In paragraph C063, Table 1 provides an option for six bundled options starting with A-RNP, RNP 1 with TA. Lesser bundles are also available with the following options: RNP 1 with RF and TA and RNAV 1; RNP 1 with RF and RNAV 1; RNP 1 with TA and RNAV 1; RNP 1 and RNAV 1; or RNAV 1 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, RF, and parallel offset. Operators applying for A-RNP must be functionally and operationally capable of performing the required A-RNP functions and meet the continuity requirements for the operation.

12) Additional Capabilities. A-RNP functions Fix Radius Transition (FRT) and/or Time of Arrival Control (TOAC) may be selected in Table 1 under additional capabilities for those who qualify for A-RNP.

C. RNAV 1 and/or RNP 1 DPs and STARs. AC 90-100 provides detailed guidance for certificate holders/operators/program managers regarding operations on RNAV 1 DPs and STARs. AC 90-105 provides guidance for system and operational approval for conducting RNP 1 DPs and STARs.

1) For current ACs, policy, guidance, and compliance tables, see http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/pbn. For further questions, contact the Performance Based Flight Systems Branch (AFS-470) at 202-267-8790. Based on the information supplied by the certificate holder/operator/program manager, the POI must coordinate with the PAI to determine equipment eligibility. For TAs, a Future Air Navigation System (FANS)-1/A is required, as indicated in OpSpec/MSpec/LOA A056.

2) Additional information may also be found in the Web-based Operations Safety System (WebOPSS) guidance associated with OpSpec/MSpec/LOA C063 by clicking on "Guidance."

D. Outlining Procedures Using This Approval. Procedures used under this approval should be outlined in the appropriate operations manual or within the OpSpec/MSpec/LOA C063 template for certificate holders/operators/program managers conducting operations under parts 91K, 125 (including A125 LODA holders), and 135 who do not have an operations manual. For part 91 operators, LOAs are optional and may be obtained through the application process.

E. Designation of RNAV 1 RNP 1. U.S. RNAV DPs and STARs throughout the NAS are designated as RNAV 1 and published in accordance with part 97.

F. Definitions Related to This Authorization. Some important definitions as they relate to this authorization are as follows:

1) Instrument Departure Procedure (DP). Instrument DPs are published IFR procedures that provide obstruction clearance from the terminal area to the en route structure. There are two types of DPs: SIDs and ODPs.

a) A SID is a published IFR air traffic control (ATC) DP that provides obstacle clearance and a transition from the terminal area to the en route structure. SIDs are primarily

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designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.

b) An ODP is a published IFR DP that provides obstruction clearance via the least onerous route from the terminal area to the appropriate en route structure. ODPs are recommended for obstruction clearance unless an alternate DP (such as a SID or radar vector) has been specifically assigned by ATC.

c) The RNAV 1 or RNP 1 DP must be retrievable from the flight management system (FMS) database and included in the filed flight plan.

G. Certificate Holders and Program Managers Authorized European Precision Area Navigation (P-RNAV) Operations. The criteria in AC 90-100, required for U.S. RNAV procedures, are generally consistent (but there are exceptions) with the criteria for P-RNAV operations in Europe.

1) P-RNAV terminal and en route operations require a track-keeping accuracy of ± 1 NM for 95 percent of the flight time.

2) If an operator has met the requirements for and is authorized P-RNAV (OpSpec/MSpec/LOA B034), that operator may also be eligible for RNAV 1 after consideration of the issues listed below regarding equipment. POIs should still evaluate their operator's procedures and training to confirm compliance with AC 90-100.

a) If approval for the P-RNAV included the use of Very High Frequency omni-directional range station (VOR)/DME, then RNAV system performance must be based on the GNSS, DME/DME, or DME/DME/IRU for RNAV 1. However, VOR/DME inputs do not have to be inhibited or deselected.

b) If approval for the P-RNAV included the use of DME/DME, the operator can ask the manufacturer or check the FAA website for a list of compliant systems. However, DME/DME-only systems are not authorized to conduct RNAV 1 operations.

c) Operators must be able to follow RNAV guidance no later than 500 feet above field elevation (AFE).

3) Appropriate P-RNAV references.

a) The current edition of AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) in European Airspace Designated for Basic Area Navigation (B-RNAV) and Precision Area Navigation (P-RNAV);

b) Joint Aviation Authority (JAA) temporary guidance leaflet (TGL) Number 10, Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace; and

c) Volume 3, Chapter 18, Section 4, OpSpec/MSpec/LOA B034.

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H. TAs. Currently, the TA model is limited and TAs are preplanned fixed routes received via data link from ATC's Ocean21 system to FANS-1/A-equipped aircraft. Except for the instrument approach portion of the operation, these routes are neither stored in the aircraft navigation database nor published.

1) TAs Consist of Three Elements.

- Delivery of the TA clearance through the ATC Ocean21 system via data link to FANS-1/A-equipped aircraft;
- An RNAV lateral, vertical, and speed profile; and
- Connection to a published instrument approach stored in the aircraft navigation database.

2) TA Clearances. Because TAs are complex clearances, only aircraft with an FMS autoload/uplink function can request a TA. Pilots may not manually enter a TA procedure into the FMS. ATC issues TA clearances. Pilots fly the TA procedure according to the operator's standard operating procedures (SOP).

3) Approval. The POI should contact the Air Transportation Division (AFS-200), General Aviation and Commercial Division (AFS-800), and AFS-470 at FAA headquarters (HQ) for concurrence prior to issuing the appropriate OpSpec, MSpec, or LOA. If the POI, AFS-200, and AFS-470 agree that the operator is authorized to conduct TA operations, authorization should be given by adding TA into the "Authorization" column of Table 1.

4) Certificate holders/operators/program managers must have all the following OpSpecs/MSpecs/LOAs for TA authorization:

a) OpSpec A056. OpSpec A056 will include FANS-1/A equipment in Table 1.

b) OpSpec B050.

c) OpSpec C063. In the "Limitations and Provisions" column of Table 1 add the following phrase: "Operator is authorized to conduct TAs with FANS-1/A-equipped aircraft listed in OpSpec A056." If the POI wishes to restrict the authorization to only specific airports, this may also be added to the "Limitations and Provisions" column of Table 1.

I. References (current editions):

- Title 14 CFR Part 91, §§ 91.123, 91.205, and 91.503.
- Title 14 CFR Part 95.
- Title 14 CFR Part 121, § 121.349.
- Title 14 CFR Part 125, § 125.203.
- Title 14 CFR Part 135, § 135.165.
- Order 1050.1, Environmental Impacts: Policies and Procedures.
- Order JO 7100.9, Standard Terminal Arrival Program and Procedures.
- Order JO 7110.65, Air Traffic Control.
- Order JO 7400.2, Procedures for Handling Airspace Matters.

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- Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).
- Order 8260.19, Flight Procedures and Airspace.
- Order 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design.
- AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases.
- AC 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System.
- AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) In European Airspace Designated for Basic Area Navigation (B-NAV)/RNAV 5 and Precision Area Navigation (P-RNAV).
- AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.
- AC 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System.
- TSO C-129a, Airborne Supplemental Navigation Equipment Using the Global Positioning System (GPS).
- TSO C-145(), Airborne Navigation Sensors Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS).
- TSO C-146(), Stand-Alone Airborne Navigation Equipment Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS).
- TSO C-196(), Airborne Supplemental Navigation Sensors for Global Positioning System Equipment using Aircraft-Based Augmentation.
- ICAO Global Operational Data Link Document (GOLD).

OPSPEC C064—TERMINAL AREA IFR OPERATIONS IN CLASS G AIRSPACE AND AT AIRPORTS WITHOUT AN OPERATING CONTROL TOWER—NONSCHEDULED PASSENGER AND ALL CARGO OPERATIONS. C064 authorizes an operator to conduct nonscheduled passenger and all cargo (scheduled and nonscheduled) terminal area instrument flight rules (IFR) operations in Class G airspace or into airports without an operating control tower, with the following limitations and provisions:

A. Operation Information. Before authorizing C064, the principal operations inspectors (POI) must ensure that the operator has sufficient content in its manual(s) and training program to cover common traffic advisory frequency (CTAF) and pilot controlled lighting (PCL) information and procedures. The POI must also determine that the operator has a method or procedure for obtaining and disseminating necessary operation information. This operation information must include the following:

1) The airport is served by an authorized instrument approach procedure (IAP) (and departure procedure when applicable);

2) Applicable charts for crewmember use;

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3) Operational weather data from an approved source for control of flight movements and crewmember use;

4) Status of airport services and facilities at the time of the operation;

5) Suitable means for pilots to obtain traffic advisories (TA); and

6) Sources of TA and airport advisories.

B. Radio Sources of Air TA Information. Certificate holders may be authorized to use any two-way radio source of air TA information listed in the Aeronautical Information Manual (AIM) (for operations in U.S. airspace) or equivalent Aeronautical Information Publications (AIP) (for foreign operations).

1) These sources include CTAFs, Aeronautical Advisory Stations (UNICOM), Aeronautical Multicom Stations (MULTICOM), and Flight Service Stations (FSS).

2) In those cases where two sources are listed at the same airport, inspectors must ensure that the operator's manuals have procedures that require pilots to continuously monitor and use the TA frequency when operating within 10 nautical miles (NM) of the airport. The procedures should require communication concerning airport services and facilities to be completed while more than 10 NM from the airport.

3) At some airports, no public use frequencies may be available. In those cases, a certificate holder must arrange for radio communication of essential information including surveillance of local or transient aircraft operations by ground personnel. Ground personnel who operate a company radio for airport status and TA must be able to view airspace around the airport.

C. Issuance of C064 for C081 Authorization. OpSpecs C064 and/or C080 may need to be issued to the certificate holder in order for the OpSpec C081 to be issued. C081 authorizes the use of special (non-14 CFR part 97) IAPs or departure procedures (DPs).

D. Other Authorizations. C064 is applicable to 14 CFR part 121, 125, 121/135, and 135 certificate holders. For helicopter authorization, see OpSpec H121. Title 14 CFR part 91 subpart K (part 91K) program managers should use MSpec A014 for Class G operations.

OPSPEC C065—POWERBACK OPERATIONS WITH AIRPLANES.

A. General. C065 authorizes the use of powerplant reversing systems for rearward taxi operations. Before issuing C065, the principal operations inspector (POI) must determine whether the operator meets requirements discussed in AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, current edition. Airplane types' make, model, and series (M/M/S) authorized for powerback operations must be listed in C065. Airports where powerback operations are authorized must also be listed. If the POI and/or operator determine that restrictions to powerback operations are required at certain gates or ramp areas, the restrictions must be described (adjacent to the airport name) in the "Restrictions and

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Limitations" column. OpSpecs worksheets provide a template for listing authorized airplanes, airports, and restrictions.

B. Policies and Procedures for Ground Personnel During Ground Operations. Title 14 CFR part 121, §§ 121.133 and 121.135, part 134, § 134.23, and part 135, § 135.21, require certificate holders to prepare manuals setting forth procedures and policies that must be used by ground and maintenance personnel in conducting their ground operations. Sufficient procedures must be established to maintain an adequate level of passenger and company ground personnel safety during ramp operations. Procedures should emphasize safety during boarding and deplaning of passengers or cargo, specifically during times when an engine(s) may be running or a propeller(s) is turning during ground operations. Procedures should include, as a minimum, a means for defining no access areas around the propeller(s), as well as the landing gear and tugs, during push and ground marshaling operations. Policies should provide that an adequate number of ground personnel are assigned to ensure safety of company personnel and passengers.

C. Pushback and Ground Marshaling. Procedures for pushback and ground marshaling activities should be clearly defined and should include safety precautions and signals, and should ensure adequate visibility of assigned personnel during the time of aircraft movement.

D. Increased Awareness. FAA air carrier surveillance programs should emphasize increased awareness by inspectors and the strict need to follow safety procedures around turning propellers, in marshalling and pushback procedures, and/or other ground activities.

E. Other References. Additional references can be found in National Transportation Safety Board (NTSB) Recommendations 91-297, 91-298, and 93-146, and Air Carrier Operating Bulletin (ACOB) 8-94-2, Safety in Ground Operations.

OPSPEC C067—SPECIAL AIRPLANE AUTHORIZATIONS, PROVISIONS, AND LIMITATIONS FOR CERTAIN AIRPORTS.

A. General. OpSpec C067 authorizes certificate holders to operate airplanes into certain airports. The authorizations include the following:

1) Title 14 CFR part 121 air carriers to conduct passenger-carrying operations into uncertificated airports (see subparagraph C);

2) Part 121 air carriers to conduct operations at airports that require curfew limitations for flights into or out of specific airports (see subparagraph D);

3) Part 121 or 14 CFR part 135 air carriers to conduct operations into airports that have operational considerations such as special aircraft performance charts and equipment, special lighting (flare pots, etc.), or unpaved runways (see subparagraph D);

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4) Part 121 or 135 air carriers to conduct operations using the Reginald Bennett International Runway (RBI) Reflectorization System in Alaska (see subparagraph D); and

5) Part 135 transport category airplane deviations from part 135, § 135.376(a)(3) or § 135.379(d). (See subparagraph D and Volume 4, Chapter 3, Section 5.)

B. Authorizations Where Other OpSpecs Are Applicable.

1) OpSpec C050 for "special PIC qualification airports" is applicable to the authorization described in part 121, § 121.445. Do not list special pilot in command (PIC) qualification airports in OpSpec C067 unless one of the items in subparagraph A also applies.

2) OpSpec C081 should be used for listing the airports/runways where the Flight Technologies and Procedures Division (AFS-400) has approved specific "special" instrument procedures for a certificate holder.

3) OpSpec C058 is used for authorizing specific foreign Terminal Instrument Procedures (TERPS).

4) OpSpec C064 and C080 are used for authorizing a certificate holder to conduct airplane operations in airport terminal areas in Class G and E airspace.

5) OpSpec C070 is used for authorizing airports where certificate holders conduct scheduled operations.

C. Uncertificated Airports.

1) In accordance with § 121.590(c) and (e), a certificate holder may be authorized to conduct passenger-carrying airplane operations into an airport (nonmilitary) operated by the U.S. Government that is not certificated under 14 CFR part 139 if those airports meet:

a) The equivalent safety standards for airports certificated under part 139, and

b) The equivalent airport classification requirements under part 139 to serve the type airplanes to be operated and the type of operations to be conducted.

2) Authorization to use such airports may be granted by entering the location/identifier of each airport, and the make and model (if applicable) of the airplanes to be operated in Table 3-24, Sample of Airports and Special Provisions:

a) Operators should obtain permission from the airport manager of nonmilitary airports to operate at these airports before starting operations.

b) This permission is not needed for operations at joint-use civil and military airports.

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3) The FAA may authorize a certificate holder to conduct passenger-carrying airplane operations into a domestic military airport that is not certificated under part 139 (by selecting this text in the OpSpec) if the certificate holder ensures the following in advance of starting operations into that airport:

a) Certificate holders should obtain permission from the base commander of military airports that are not certificated under part 139 in advance of commencement of operations.

b) In accordance with the requirements of § 121.590, certificate holders must ensure that the airport:

1. Meets the equivalent safety standards for airports certificated under part 139, and

2. Meets the equivalent airport classification requirements under part 139 to serve the type airplanes to be operated and the type of operations to be conducted.

D. Other Special Authorizations.

1) Other special authorizations include those that may require special operational considerations and special flightcrew member training. (See guidance in Volume 4, Chapter 3, Section 5, paragraph 4-601.) These authorizations may include but are not limited to:

a) Operations into airports with special runway markings, such as flare pots or trees;

b) High-altitude airports with special airplane performance requirements;

c) Airports in or near precipitous terrain (§ 135.363(h)); and

d) Airports with unpaved runways or runways constructed on frozen lakes and rivers.

2) Special authorization for conducting operations at airports in Alaska. For authorization to conduct airplane operations using the RBI Runway Reflectorization System in Alaska:

a) The air carrier must provide a station agent at the airport trained to give wind information to the flightcrew, and

b) The air carrier must train its flightcrews on this specific system in accordance with an approved training program. The training program must be approved in accordance with the following criteria:

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1. Each pilot must receive initial and follow-on recurrent training in accordance with the company approved training program.

2. Ground and flight personnel must complete initial training before participation with this authorization.

3. Recurrent training must be completed every 12 calendar-months following completion of initial training.

4. Whenever a person who is required to take this recurrent training completes the training in the calendar-month before or the calendar-month after the month in which this recurrent training is required, that person is considered to have completed it in the calendar-month in which it was required.

NOTE: The sample Table 3-24 shows how to provide authorization for conducting operations after curfew hours at specific airports or use of the RBI Runway Reflectorization system at specific airports in Table 3-24 of OpSpec C067.

3) Unpaved Runways for Turbojet Operations. To use an airport with unpaved runways, an operator is required to have special operational procedures and flightcrew member training. For approval of operations at an airport with unpaved runways, the principal operations inspector (POI) must identify the airport and reference the appropriate section of the operator's manuals in Table 3-24 of OpSpec C067. See Volume 4, Chapter 3, Section 5.

4) You may list in OpSpec C067 flag or supplemental destination airports that do not have an available alternate airport (in accordance with § 121.621(a)(2) or § 121.623(b)), for use by airplanes that are dispatched in accordance with the required fuel reserves set forth in § 121.641(b) or § 121.645(c).

5) Although the FAA does not encourage operators to list aircraft limitations at certain airports during curfew hours in their OpSpecs, if an airport authority requires operators to list these limitations in their OpSpecs, then operators may list them in Table 3-24 of OpSpec C067. A sample of Table 3-24, below, shows an example of limitations for air carrier operations into specific airports during curfew hours.

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Table 3-24. Sample of Airports and Special Provisions

Airport Location/Identifier	Aircraft M/M (enter N/A if not applicable)	Special Provisions and Limitations and Special Flightcrew Member Training
PKEK, Ekwok, Alaska	N/A	A station agent is required to give wind information to the flightcrews and the flightcrew must have completed the required approved training on the RBI Runway Reflectorization System.
DCA, Ronald Reagan Washington National Airport	Boeing 737-800	Limitations during the curfew hours. Boeing 737-800 Max Takeoff—159,000 pounds. Max Landing—137,600 pounds.
Tahiti Island, Society IS; PPT/NTAA	N/A	Approved as destination airport without an available alternate.

6) Deviation from the requirement to obtain obstacle clearance data for takeoff. This OpSpec provides for the authorization of certain transport category airplanes a deviation from § 135.367(a)(3) or § 135.379(d). Guidance for this deviation authorization is contained in Volume 4, Chapter 3, Section 5, paragraph 4-599. To authorize this deviation, it must be listed in OpSpec A005 and the following statement must be selected in OpSpec C067:

> "The certificate holder is authorized to conduct takeoff operations using transport category airplanes weighing no more than 19,000 pounds and having a seating configuration of no more than 19 passenger seats without showing compliance with part 135, §§ 135.367(a)(3) and 135.379(d). This authorization is limited to only the following operations conducted:
>
> - At airports of 4,000 feet mean sea level or less field elevation;
> - On runways on which the available length of runway is equal to or greater than 150 percent of the runway required by part 135, § 135.367(a)(1) and (2) or part 135, § 135.379(c), as applicable; and
> - In weather conditions equal to or greater than straight-in Category I landing minimums for the runway being used."

OPSPEC C068—NOISE ABATEMENT DEPARTURE PROFILES (NADP) ITEM 7K.

A. General. C068 authorizes an operator to conduct Noise Abatement Departure Profiles (NADP) using aircraft with a maximum certificated gross takeoff weight (GTOW) of more than 75,000 pounds. Operators may use either or both of two standard NADPs as described in Advisory Circular (AC) 91-53, Noise Abatement Departure Profiles, current edition.

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B. Compliance of Vertical Departure Profiles. Before authorizing this paragraph, the principal operations inspector (POI) must ensure that all airplane vertical departure profiles described in the certificate holder operations and/or training manuals comply with the minimums criteria established in AC 91-53 for NADPs (close-in and distant) before approving paragraph C068 for the certificate holder's OpSpecs. The certificate holder must not use any other departure profile (except as stated in 14 CFR part 91) that is not defined within the AC.

NOTE: Use of part 91 procedures does not require OpSpecs authorization. If the operator does not meet the criteria established in AC 91-53, then OpSpec C068 will not be issued.

C. Proposed Exceptions to This OpSpec. Proposed exceptions to the criteria as stated in this OpSpec, which would be less limiting (less than 800 feet above field elevation (AFE)), must be addressed by the certificate holder to the certificate holder's POI for concurrence by the Flight Technologies and Procedures Division (AFS-400) of the Flight Standards Service (AFS).

D. Criteria for Close-In and Distant NADPs. AC 91-53, effective July 22, 1993, established minimum acceptable criteria for speed, thrust settings, airplane configurations, and the criteria for both the close-in and distant NADPs. These NADPs can be combined with preferential runway selection and flightpath techniques to minimize noise impact. For helicopter information, see the current edition of AC 91-66, Noise Abatement for Helicopters.

NOTE: The distant departure profile requires an initiation of flaps/slats retraction prior to thrust cutback initiation with the thrust cutback initiation at an altitude of no less than 800 feet AFE. Configuration changes necessary to meet regulatory performance or operations requirements will not be affected by this procedure. For those airplanes that have a performance requirement to reduce takeoff flaps to an intermediate takeoff flap setting at 400 feet AFE or above, the next flap/slats retraction should be initiated at an altitude of no less than 800 feet AFE.

OPSPEC C070—AIRPORTS AUTHORIZED FOR SCHEDULED OPERATIONS.

A. General. Under 14 CFR part 119, § 119.49, the OpSpecs must prescribe the authorizations and limitations for each type of operation. All regular airports shall be listed in the OpSpecs of all operators conducting scheduled operations. This includes domestic operations, flag operations, and commuter operations. Provisional and refueling airports will be listed for 14 CFR part 121 domestic and flag operations:

- Airport name,
- Four-letter identifier of the airport,
- Airplanes authorized to use the airport, and
- A notation as to whether the airport is regular (R), refueling (F), or provisional (P) for each type of airplane authorized (refueling and provisional airports are not applicable to part 135 operators).

NOTE: If an airport is designated as provisional, the regular airport or airports for which it serves as a provisional airport must be annotated. (Except in unique

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situations, an airport should not be designated as a provisional airport if it is located more than 100 statute miles outside of the metropolitan area served by the regular airport.)

B. Requirements for List of Airports. If the operator provides a list of airports to be incorporated into C070, this list must provide the same type of information discussed in subparagraph A. This list must be annotated with the effective date of the listing.

C. List of Alternate Airports. C070 specifies that the operator must maintain a list of alternate airports that can be used. This list of alternates may be integrated into the list provided by the operator, if desired. The principal operations inspector (POI) should occasionally inspect the list of alternates to determine airport and airplane compatibility.

OPSPEC/LOA C071—AUTOPILOT MINIMUM USE ALTITUDES/HEIGHTS (MUH).

A. Applicability. OpSpec/LOA C071 is a mandatory authorization for certificate holders/operators who want to operate an autopilot below 500 feet above ground level (AGL), during takeoff or approach operations. Autopilot minimum use altitudes/heights (MUHs) in this OpSpec/LOA are applicable to 14 CFR parts 121, 125 (including 125 Letter of Deviation Authority (LODA) holders), and 135. OpSpec/LOA C071 will base its authorization on part 121, § 121.579; part 125, § 125.329; and part 135, § 135.93. OpSpec/LOA C071 does not replace or override OpSpec/LOA C059, Category II Instrument Approach and Landing Operations (Optional: 14 CFR Parts 121, 125, 125M, and 135 Operators) and Special Authorization Category I Instrument Approach and Landing Operations; OpSpec/LOA C060, Category (CAT) III Instrument Approach and Landing Operations; or OpSpec C061, Flight Control Guidance Systems For Automatic Landing Operations Other Than Categories II and III authorizations. The Administrator has authorization to require an altitude higher than the Airplane Flight Manual (AFM).

1) Approved Airplanes and Equipment. Table 1 lists the airplane configuration and the associated MUHs approved for each individual phase of flight. Airplanes with same M/M/S, but equipped with a different autopilot model/version and MUHs must be listed separately.

NOTE: This OpSpec/LOA uses “altitude/height” when referencing MUHs. AFMs use “altitude” or “height” in referencing MUH.

Table 1 – Approved Airplanes, Equipment and MUHs

Airplane Type (M/M/S)	Autopilot Manufacturer	Autopilot Model/Version	Minimum Use Heights/Altitudes (feet)		
			Takeoff/Initial Climb	Enroute	Approach

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2) Determining MUHs. Specified MUHs and/or specified altitude/height losses published in the AFM will be the basis for this OpSpec/LOA. The following criteria will be used by this OpSpec/LOA to authorize any alternatives to these altitudes:

a) If the Flight Standardization Board (FSB) report recommends a higher altitude than the AFM, the higher FSB (Administrator) altitude will be the authorized altitude.

b) If an FSB report is not available, or does not address autopilot use altitudes, the lowest authorized altitude in the AFM will be used.

c) If an FSB report is not available and the AFM does not address autopilot use altitudes/heights, the lowest authorized altitude/height shall be the basic MUH for a given phase of flight.

3) Takeoff/Initial Climb and Go-Around/Missed Approach Engagement Height. The basic minimum engagement height for an autopilot on takeoff/initial climb and go-around/missed approach is 500 ft. The following exceptions to the 500 ft. basic engagement height are:

a) A higher altitude/height if doubling the “altitude/height loss” specified in the AFM is greater than 500 ft.,

b) A minimum engagement altitude is specified in the AFM, or

c) An altitude/height recommended by FSB, that is no lower than the AFM or double the “altitude/height loss.”

4) Enroute MUHs. The lowest MUH during enroute operations is 500 ft. above the ground, except as follows:

a) If doubling the “altitude/height loss” specified in the AFM results in an altitude/height greater than 500 ft., or

b) A greater altitude recommended by FSB.

5) Approach MUHs. The MUH during approach operations is no lower than 50 ft. below the lowest DA/H or MDA/H for the instrument procedure being flown, except as follows:

a) For autopilots with an AFM specified altitude/height loss for approach operations:

1. An altitude no lower than twice the specified altitude/height loss if greater than 50 ft. below the DA/H or MDA.

2. An altitude no lower than 50 ft. higher than the altitude loss specified in the AFM when:

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a. Reported weather conditions are less than the basic VFR weather conditions in 14 CFR part 91, § 91.155,

b. Suitable visual references specified in § 91.175 have been established on the instrument approach procedure (IAP), and

c. The autopilot is coupled and receiving both lateral and vertical path references.

3. An altitude no lower than the greater of the altitude loss specified in the AFM or 50 ft. when:

a. Reported weather conditions are equal to or better than the basic VFR weather conditions in § 91.155, and

b. The autopilot is coupled and receiving both lateral and vertical path references.

4. A greater altitude recommended by FSB.

b) For autopilots with AFM specified approach altitude/height limitations, and the autopilot is coupled and receiving both lateral and vertical path references, the greater of:

1. The MUH specified for the coupled approach mode selected,

2. Fifty feet, or

3. An altitude recommended by FSB.

c) For autopilots with an AFM specified negligible or zero altitude loss for an autopilot approach mode malfunction, and the autopilot is coupled and receiving both lateral and vertical path references, the greater of:

1. Fifty feet, or

2. An altitude specified by Administrator.

6) Types of Certificates. Airplanes with specified MUHs, specified negligible or zero height loss, or specified height loss will meet the following criteria:

a) Will be published in the AFM and the autopilot approved in accordance with an FAA type certificate (TC).

b) Will be published in an AFM supplement and issued as a Supplemental Type Certificate (STC).

7) AFM. The AFM and its supplements are the primary resource for establishing autopilot MUHs and issuing OpSpec/LOA C071. The AFM contains operational procedures and limitations approved by Aircraft Certification Offices (ACO).

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8) Aircraft Evaluation Group (AEG). The principal operations inspector (POI) may use the AEG as a liaison between the PI and ACO during the AFM approval process when there are any questions regarding the AFM, FSB, or any other subject found in the list above.

9) Operator Produced Manuals. An Airplane Operations Manual (AOM), General Operations Manual (GOM), or Flightcrew Operating Manual (FCOM) is an operator published document. Although produced in accordance with parts 121, 125, and 135, use information directly from AFM to issue OpSpec/LOA C071. Do not solely use information from operator produced manuals to issue OpSpec/LOA C071. The AFM establishes the basis for the limitations, operational procedures, and performance sections published in these documents.

10) Manuals with Takeoff Procedures. Some AOMs, GOMs, or FCOMs contain procedures for systems not specifically designed with a takeoff or approach mode. Do not use these types of procedures as a basis for approving procedures and training programs that relate to achieving necessary takeoff or approach performance.

a) Principal inspectors (PI) approving, or who have approved, performance-related takeoff or approach procedures and training for systems not specifically designed with these modes should coordinate with the responsible AEG.

b) The AEG, in coordination with the responsible ACO, should be able to provide inputs on the procedure, and propose conditions and limitations, if any, as appropriate.

B. Training Program. Flightcrews must be trained in accordance with the certificate holder/operator's training program. Certificate holder/operator training programs should specifically address the following topics:

1) Autopilot function, use, and limitations relative to approach and navigational source used.

2) Flight management system (FMS) function, use, and limitations relative to approach and navigational source used.

3) Procedures, modes, and configurations for flying an autopilot coupled approach.

4) Applicable monitoring and cross check requirements.

5) Suitable accuracy checks using control display unit (CDU) pages or flight instrument displays.

6) Display use, including deviation indications and display scaling.

7) Pilot Flying (PF) and pilot monitoring (PM) duties and callouts during: descent, approach, landing, and missed approach.

8) Understanding and interpretation of U.S. terminal procedures (e.g., departure procedures, Standard Terminal Arrival Routes (STAR), and IAPs).

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9) Understanding, interpretation, and proper response to appropriate failure indications prior to initiation of an approach or during an approach.

10) Proper techniques to accomplish any special flight deck procedure specified by the certificate holder/operator for the approach type used or for the particular approach to be flown.

11) Any unique issues particular to a specific approach or family of approach procedures, airplane or FMS.

12) Proper techniques for executing a missed approach during any segment of the approach with the autopilot engaged or disengaged.

13) The flightcrew must have successfully completed training for Auto Flight Guidance System (AFGS) operations at the MUHs.

14) Understanding the limitations of navigational systems used for approach operations (e.g., Instrument Landing System (ILS) facility performance classification codes and their expected performance found in the Airport Facility Directory (AFD)).

C. Maintenance Program. The certificate holder/operator shall conduct operations in accordance with the airworthiness certification of the autopilot found in 14 CFR part 25, § 25.1329. The certificate holder/operator must also review the established maintenance and reliability program. The design of the program should ensure the equipment functions to the prescribed levels as delivered by the manufacturer, and include maintenance and preventative maintenance. Reference appropriate manuals for compliance with manufacturers' recommendations.

OPSPEC C072—ENGINE-OUT DEPARTURE PROCEDURES WITH APPROVED 10 MINUTE TAKEOFF THRUST TIME LIMITS.

A. General. OpSpec C072 is optional and authorizes the certificate holder to use engine-out departure procedures (DPs) under the provisions of 14 CFR parts 121, 125, and/or 135, as appropriate, using airplanes that are equipped with powerplants that are approved 10-minute takeoff thrust time limits in accordance with the provisions of this guidance and OpSpec C070.

B. Takeoff Obstacle Climb Data in the Aircraft Flight Manual (AFM). The manufacturer's AFM must include takeoff obstacle climb data for use with a 10-minute, engine-out takeoff thrust time limit. This AFM data must be applied to the certificate holder's airplane engine-out takeoff obstacle analysis to provide critical obstacle clearance in the event of an engine failure during takeoff.

1) The FAA Transport Airplane Directorate and the Engine and Propeller Directorate have developed a procedure to certify and revise airplane manufacturers' AFMs to include takeoff obstacle climb data for use with a 10-minute, engine-out takeoff thrust time limit.

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2) Previously, airplane operators' AFM takeoff data only provided data for a 5-minute takeoff thrust time limit. Airplane operators may obtain revised AFMs from airplane manufacturers for specific airplane/engine combinations. This AFM data may then be applied to the airplane operator's engine-out takeoff obstacle analysis to provide critical obstacle clearance in the event of an engine failure during takeoff.

C. Airplane Thrust Limit Restrictions. Because it is assumed that not all airplanes operated by an air carrier will have their AFMs revised for 10-minute takeoff thrust data, some operators' airplane takeoff thrust limits may be restricted to 5 minutes, while other airplanes in the same fleet may have the 10-minute restriction. Certain criteria must be addressed to inform the pilot which limit is applicable in the event of an engine failure during takeoff.

D. Engine-Out DPs. The certificate holder's approved operations manual and training program must include the engine-out DPs specifically designed to use the 10-minute takeoff thrust time limits. These DPs require that airplane operator's training programs, manuals, and procedures address the following areas:

1) Air carrier performance engineers' evaluation of engine-out DPs specifically designed to use the 10-minute takeoff thrust time limit.

2) An FAA AFM revision outlining operational procedures with specific airplane/engine lists that involve the 10-minute takeoff thrust time limit.

3) An FAA-approved dispatch or similar acceptable system that provides specific 10–minute, engine-out takeoff thrust departure procedure information to the pilot for the impending flight concerning the airport, aircraft weight, and departure path.

4) Information readily available to the pilot that indicates airplanes authorized for 10-minute takeoff thrust operations in the event of an engine failure on takeoff.

5) Pilot knowledge of the designed engine-out departure procedure that uses the 10-minute takeoff thrust time limit.

6) Pilot training of the 10-minute takeoff thrust time limit departure flight procedure.

OPSPEC/MSPEC/LOA C073—VERTICAL NAVIGATION (VNAV) INSTRUMENT APPROACH PROCEDURES (IAP) USING MINIMUM DESCENT ALTITUDE (MDA) AS A DECISION ALTITUDE (DA)/DECISION HEIGHT (DH).

A. Applicability. OpSpec/MSpec/LOA C073 is applicable to all certificate holders/operators/program managers conducting airplane operations under 14 CFR parts 91, 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. OpSpec/MSpec/LOA C073 will be used in conjunction with OpSpec/MSpec/LOA C052 (not applicable to part 91 operators). OpSpec/MSpec/LOA C073, in accordance with part 91, § 91.175, which states "unless otherwise authorized by the FAA," authorizes certificate holders/operators/program managers to use a minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) using vertical navigation (VNAV).

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B. VNAV Operating Concept. The VNAV operating concept is to fly approach procedures using VNAV guidance with a defined Vertical Path (VPATH) that provides a continuous descent final approach (CDFA). All 14 CFR part 97 Nonprecision Approach (NPA) straight-in IAPs may be flown using an MDA as a DA/DH.

NOTE: The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when § 91.175 requirements are met and the approach is continued below the MDA for landing.

C. Airplane Type and Area Navigation (RNAV) System. OpSpec/MSpec/LOA C073, Table 1 will list the airplane type by make, model, and series (M/M/S) and the RNAV system by model and version.

1) The installed navigation equipment with VNAV must be certified and documented in accordance with FAA Advisory Circular (AC) 20-129, Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S. National Airspace System (NAS) and Alaska, or AC 20-138 (revision A and later), Airworthiness Approval of Positioning and Navigation Systems. The types of certification include: type certificate (TC), amended TC, Supplemental Type Certificate (STC), and amended STC. An FAA equivalent approval may also include a Service Bulletin (SB) installation with approved data by the air carrier. The following are accepted ways to determine certification:

a) A statement in the FAA-approved Airplane Flight Manual (AFM) showing that the aircraft is equipped with a VNAV system certified in accordance with AC 20-129 or AC 20-138 (revision A and later).

NOTE: AC 20-129 applies only to barometric vertical navigation (baro-VNAV), while AC 20-138A applies only to Satellite-based Augmentation Systems (SBAS) and Ground-Based Augmentation Systems (GBAS). AC 20-129 was cancelled when guidance information for baro-VNAV, SBAS, and GBAS was combined into AC 20-138B and later versions.

b) An Aircraft Evaluation Group (AEG) verification that the applicant's aircraft and flight management system (FMS) meets AC 20-129 or AC 20-138 (revision A or later) criteria for VNAV operations. This may replace the requirement for an FAA-approved AFM statement or an applicable Flight Standardization Board (FSB) report.

2) The certificate holder/operator/program manager is required to provide documentation proving that airworthiness maintenance practices and procedures are being accomplished.

3) The certificate holder/operator/program manager must review and revise the minimum equipment list (MEL), as necessary, to address any pertinent VNAV or FMS operating requirements.

D. Public Vertically Guided IAP Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath

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Qualification Surface (GQS) assessments protect the landing area and are accomplished on part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV (Required Navigation Performance (RNP)), and RNAV Global Positioning System (GPS)) IAP with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

E. Visual Approach Slope Indicator (VASI)/Precision Approach Path Indicator (PAPI) Requirements. VASI/PAPI lighting systems are normally set at a descent angle of 3.0 degrees or with the electronic ILS glideslope (GS), if applicable. Variances to the normal requirements are issued by a Notice to Airmen (NOTAM) and permanently published in the Airport/Facility Directory. A note in the profile view will state if the VASI/PAPI descent angle is not coincident with the published VDA or GS. VASI/PAPI is referenced as Visual Glide Slope Indicator (VGSI) in the C073 template and subparagraph F3).

F. Authorized Approaches. The certificate holder/operator/program manager may fly all part 97 nonprecision straight-in IAPs listed as authorized in their OpSpec/MSpec/LOA C052, Table 1, columns 1 and 2 (C052 not applicable to part 91 operators), using an MDA as a DA/DH if the approach meets one of the following requirements and its subcomponents:

1) Serves a runway that has a published RNAV IAP ("RNAV (GPS)," "RNAV (RNP)," or "GPS" in the title) with a published LNAV/VNAV or RNP DA, and:

a) Has the exact published final approach course as the RNAV IAP.

b) Has a published VDA coincident with or higher than the the barometric vertical guidance GS on the published RNAV IAP.

NOTE: A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

c) Is selected from an approved and current database and the FMS displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. See examples below.

1. For FMS FPAs displayed in tenths, 3.1 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.14. An FPA of 3.2 may be displayed for a published IAP with a VDA of 3.10 to 3.20.

2. For FMS FPAs displayed in hundredths, 3.10 may be displayed if the FMS FPA does not match the published IAP with a VDA or GS of 3.10 to 3.14. An FPA of 3.20 may be displayed for a published IAP with a VDA of 3.10 to 3.20.

NOTE: Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using

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baro-VNAV. Certificate holders/operators/program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations.

2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima and:

a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

b) Has a published VDA or GS coincident with or higher than the GS on the published ILS, GLS, or RNAV IAP.

1. A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. VNAV path must be at or above all stepdown fixes.

2. A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. VNAV path must be at or above all stepdown fixes.

c) Is selected from an approved and current database and the FMS displays a FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. See examples below.

1. For FMS FPAs displayed in tenths, 3.1 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.14. An FPA of 3.2 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.20.

2. For FMS FPAs displayed in hundredths, 3.10 may be displayed if the FMS FPA does not match the published IAP with a VDA or GS of 3.10 to 3.14. An FPA of 3.20 may be displayed for a published IAP with a VDA of 3.10 to 3.20.

NOTE: Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders/operators/program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations.

3) Serves a runway to an airport operating under 14 CFR part 139 with a VGSI.

a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

G. Approach Design Requirements. The IAP must conform to the following procedural design:

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1) Be published with a VDA or GS found in the profile view.

2) Have a VNAV path angle greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and a VNAV path angle greater than 2.75 and less than 3.50 degrees for Category D/E aircraft.

3) Steeper descent paths may be authorized in accordance with the current edition of AC 120-29. Submit aircraft capability and supporting procedures to the Flight Technologies and Procedures Division (AFS-400) via the principal operations inspector (POI).

H. Database. Waypoint and procedure data must be retrievable from an approved and current database. Source data or database providers must provide for the specification of a VPATH that ensures operation above stepdown fixes between the threshold and the final approach fix (FAF).

NOTE: The procedure must be loaded from the database and cannot be modified.

I. Operational Considerations. The certificate holder/operator/program manager will comply with the following operational conditions:

1) They will follow the lateral flightpath to the missed approach point (MAP) before beginning any turns, unless air traffic control (ATC) has provided alternate climb-out instructions when executing a missed approach before the MAP. He or she will comply with published altitude restrictions between the FAF and the MAP and continue on or climb to the altitude specified in the missed approach procedure. He or she will ensure that the altitude at the published MAP is equal to or greater than the published MDA.

2) They will not use an MDA as a DA/DH if the requirements specified in this guidance are not met. The certificate holder/operator/program manager may use a CDFA, but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

J. Flightcrew Training. Flightcrews must be trained in accordance with the certificate holder/operator/program manager's OpSpec/MSpec/LOA C052. Part 91 operators must be proficient with VNAV and the IAP to be flown.

OPSPEC C075—CAT I IFR LANDING MINIMUMS—CIRCLING APPROACHES.

A. General. OpSpec C075 is issued to operators who conduct 14 CFR part 121, 125, and 135 operations with fixed-wing airplanes. OpSpec C075 specifies the lowest minimums that can be used for Category (CAT) I circling approach maneuvers. It also provides special limitations and provisions for instrument approach procedures (IAP) at foreign airports. See Volume 4, Chapter 2 for more information on required training for circling maneuvers.

B. Circle-to-Land Maneuver. For the purpose of this OpSpec authorization, any operator issued this paragraph is authorized to conduct circle-to-land maneuvers. In any weather condition, a certificate holder that permits its pilots to accept a "circle to land" or a "circle to runway (runway number)" clearance from air traffic control (ATC) conducts

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circle-to-land maneuvers. The term “circle-to-land maneuver” includes the maneuver that is referenced in various regulations, publications, and documents as “circle to land maneuver,” “circling,” “circling maneuver,” “circle,” “circling approach,” and “circling approach maneuver.” With regard to pilots, “conducting” a circle-to-land maneuver means to act as the Pilot Flying (PF) when a circle-to-land maneuver is being conducted.

C. Operations Under IFR During Circle-to-Land. Aircraft operating under instrument flight rules (IFR) during all circle-to-land maneuvers are required to remain clear of clouds. If visual reference to the airport is lost while conducting a circle-to-land maneuver, the missed approach procedure specified for the applicable instrument approach must be followed, unless an alternate missed approach procedure is specified by ATC.

D. Documenting Maneuver Descriptions and Procedures. Each certificate holder who is issued OpSpec C075, and who is also required to have maneuver descriptions/procedures, must publish in its training manual, or must incorporate in its training manual by reference to another approved manual, a detailed description of the procedures used to conduct a circle to land maneuver. Pilots must conduct circle-to-land maneuvers using those procedures.

E. Provisions for Part 121 Certificate Holders to Perform Circle-to-Land Maneuvers. Part 121 certificate holders may conduct circle-to-land maneuvers under two separate provisions within OpSpec C075.

1) Part 121 Operations with Flight Training and Flight Checking. Part 121 certificate holders whose pilots have been trained and checked for the circling maneuver in accordance with part 121 appendices E and F, or in accordance with an Advanced Qualification Program (AQP), may conduct a circle-to-land maneuver:

- At the published circling landing minimums for the instrument approach to be used; or
- At the minimums specified in the chart contained within the OpSpec paragraph, whichever is higher.

a) Appendix E does not require a part 121 certificate holder to train a second in command (SIC) in the circling maneuver if the certificate holder prohibits the SIC from performing/conducting (acting as PF) a circling maneuver. However, an SIC must be trained and can be checked in those functions specific to the circle-to-land maneuver that the SIC is required to perform while acting as pilot-not-flying (PNF).

b) Any pilot who possesses a pilot certificate restricting circling approaches to visual meteorological conditions (VMC) is not eligible to conduct circle-to-land maneuvers, except as provided in subparagraph E.

2) Part 121 Operations Without Flight Training and Flight Checking. Certificate holders conducting circle-to-land maneuvers without training and checking must use a minimum descent altitude (MDA) of 1,000 feet height above airport (HAA) or the MDA of the published circling landing minimums for the instrument approach to be used, whichever is higher. Certificate holders that conduct a circle-to-land maneuver under this provision remain under an

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IFR clearance and must comply with those procedures otherwise required for circle-to-land maneuvers. Certificate holders must ensure that pilots are familiar with those procedures. Part 121 pilots who have not been trained and checked for the circling maneuver in accordance with part 121 appendices E and F, or in accordance with an AQP, may conduct a circle-to-land maneuver when:

- The reported ceiling is at least 1,000 feet and the visibility is at least 3 statute miles (see part 121 appendices E and F); or
- The reported weather is at least equal to the published circling landing minimums for the instrument approach to be used, whichever is higher.

F. Circle-to-Land Maneuvers Regarding Part 125. Part 125 certificate holders are not permitted to conduct circle-to-land maneuvers in airplanes without their pilots having been checked in that maneuver.

1) Part 125, § 125.291(b) States: "The IAP or procedures must include at least one straight in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure."

2) Required Part 125 SIC. The SIC must complete the annual competency check required by § 125.287. The circle-to-land maneuver is not part of the § 125.287 competency check. However, each SIC is evaluated for flightcrew coordination.

3) PNF Duties. Each crewmember can be checked in those functions specific to the circle-to-land maneuver that the pilot is required to perform while acting as PNF.

G. Circle-to-Land Maneuvers Regarding Part 135. Part 135 certificate holders are not permitted to conduct circle-to-land maneuvers in aircraft without their pilots having been checked in that maneuver. (Helicopter IFR circle-to-land maneuvers are authorized in OpSpec H118.)

1) Part 135, § 135.297.

a) Section 135.297(a) does not allow "any person to serve, as pilot in command of an aircraft under IFR unless, since the beginning of the 6th calendar month before that service, that pilot has passed an instrument proficiency check under this section…."

b) Section 135.297(b) requires, "The IAP or procedures must include at least one straight in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure." The requirement to demonstrate a circle-to-land maneuver applies to both airplanes and helicopters.

c) Part 135 single-pilot and single pilot-in-command (PIC) operators are not required to have training programs. However, the circle-to-land maneuver must be successfully demonstrated in every § 135.297 instrument proficiency check (IPC).

2) In accordance with § 135.293, a part 135 IFR operator must ensure that each IFR SIC has an annual competency check. In accordance with Volume 3, Chapter 19, Section 7,

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paragraph 3-1279, an SIC need not be evaluated in "circling approaches" when an operator's procedures restrict an SIC from conducting (acting as PF) this event in revenue service. However, each required IFR SIC is evaluated for flightcrew coordination.

3) PNF duties. Each pilot must be trained and can be checked in those functions specific to the circle-to-land maneuver that the pilot is required to perform while acting as PNF.

4) The standard of competence for part 135 IPCs is specified in § 135.293(d). This standard is also specified in the Airline Transport Pilot and Aircraft Type Rating Practical Test Standards for Airplane (FAA S-8081-5) and the Instrument Rating Practical Test Standards for Airplane Helicopter Powered Lift (FAA S-8081-4).

H. Helicopter Authorization. For helicopter authorization, see OpSpec H118.

OPSPEC/MSPEC C076—CAT I IFR LANDING MINIMUMS—CONTACT APPROACHES. The certificate holder must not use any instrument flight rules (IFR) Category (CAT) I landing minimum lower than that prescribed by the applicable published instrument approach procedures (IAP). The IFR landing minimums prescribed in paragraph C052 for nonprecision and precision approaches are the lowest CAT I minimums authorized for use at any airport. For helicopter authorization, see OpSpec H119.

OPSPEC C077—TERMINAL FLIGHT RULES LIMITATIONS AND PROVISIONS.

A. OpSpec C077. OpSpec C077 is an optional authorization that is applicable to all operators conducting operations under the provisions for 14 CFR part 135 on-demand turbojet, all 14 CFR part 121 certificate holders, and 14 CFR part 129 foreign air carriers (except for rotorcraft operations). Information on C077 for part 129 foreign air carriers is contained in Volume 12, Chapter 2, Section 5 of this handbook. Information regarding C077 contained in this section applies only to certificate holders conducting part 121 and part 135 operations.

B. Charted Visual Flight Procedure (CVFP). OpSpec C077 provides for operations under a CVFP unless operating under the provisions of 14 CFR part 93, Special Federal Aviation Regulation (SFAR) 50-2. The minimums in the CVFP may not be lower than those required by part 121, § 121.649 or part 135, § 135.205, as applicable.

C. Visual Flight Rules (VFR) Weather Condition Minimums. The VFR weather conditions specified in part 91, § 91.155 may be used. However, where § 91.155(c) and (d) refers to § 91.157, the minimums set forth in § 121.649 or § 135.205, as applicable, take precedence for operations conducted under part 121 or 135.

D. Subparagraph c.(2)(b). Uncontrolled airports can be in either controlled or uncontrolled airspace. As long as the provisions listed in this subparagraph are met, the operator may operate VFR in uncontrolled airspace in the terminal area in accordance with this OpSpec. For the purpose of direct communication at uncontrolled airports, a common traffic advisory frequency (CTAF) may be utilized as long as it is associated with an air/ground communication facility. The CTAF may be an Aeronautical Advisory Station (UNICOM), Aeronautical Multicom System (MULTICOM), Flight Service Station (FSS), or a tower frequency. Acceptable air/ground communication is a demonstrated reliable means to directly relay traffic

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advisories (TA) and information that is pertinent to conditions on and around the landing surface during the terminal phase of flight. For example, if the certificate holder adequately demonstrates to the principal operations inspector (POI) its reliability to relay essential information, via radio or another type of communication, through an agent located near the landing surface, it is considered to be a "demonstrated reliable means" of communication.

E. Subparagraph c.(3). In lieu of a published CVFP, an authorized visual guidance procedure such as the use of RNAV Visual Flight Procedures (RVFP) is highly recommended for all terminal VFR departures/arrivals that fall under this OpSpec. The proximity of obstacles to the departure flightpath, the visibility, the accuracy of the guidance and control systems, the pilot's proficiency, and the operator's training should determine the size of the area in which obstacle clearance or avoidance must be considered. The POI should also take into account the airplane performance data described in Volume 4, Chapter 3 of this handbook.

F. Terminal Departures VFR. At airports that do not have an operating air traffic control (ATC) facility, subparagraph d. of C077 allows a flightcrew on an instrument flight route (IFR) flight to take off and depart under VFR without obtaining an IFR clearance, provided all of the conditions and limitations of C077 subparagraph d.(1) through d.(4) are met. The flightcrew must obtain an IFR clearance as soon as it is practical after takeoff, but under no circumstances farther than 50 nautical miles (NM) from the departure airport. In the case where a certificate holder is issued OpSpec B051 for VFR en route operations in conjunction with C077, the flightcrew may apply the provisions B051, where applicable, in lieu of obtaining an IFR clearance.

G. Terminal Departure IFR Requirements in Subparagraph e. This subparagraph allows the flightcrew to accept an IFR clearance that contains a takeoff and climb in VFR conditions to a specified point in the clearance. The certificate holder must ensure that the obstacle performance requirements are met.

H. Special Limitations and Provisions for All VFR Operations. C077 subparagraph f. provides special limitations and provisions for all VFR operations. This subparagraph is applicable to all the provisions and limitations of C077.

1) Subparagraph f.(1). In order for the certificate holder or operator to conduct terminal VFR operations under C077, they must have in place either a procedure or program which can identify obstacles and the airport obstacle data. Further, they must ensure use of that information by the flightcrew.

2) Subparagraph f.(2). Although each subparagraph has specific details and minimums regarding VFR, the requirements for sufficient visibility to identify and avoid obstacles is required for all VFR operations.

OPSPEC C078/C079—IFR LOWER-THAN-STANDARD TAKEOFF MINIMA AIRPLANE OPERATIONS—ALL AIRPORTS.

A. General. C078 and C079 are optional for authorizing lower-than-standard takeoff minimums. The authority for lower-than-standard takeoff minimums is contained in 14 CFR part 121, § 121.651(a)(1); 14 CFR part 125, § 125.381(a)(1); and 14 CFR part 135, § 135.225(g)

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and (h). When appropriate, principal operations inspectors (POI) will issue OpSpec C078 to part 121 or 125 operators, LOA C078 to part 125 Letter of Deviation Authority (LODA) operators, and OpSpec C079 to part 135 operators. These authorizations contain specific criteria regarding pilots, training and qualifications, aircraft, and airports when lower-than-standard takeoff minimums are used.

NOTE: C078 and C079 are applicable to all airports utilized by the operator.

NOTE: If available for a specific airplane, Flight Standardization Board (FSB) reports should be reviewed for any additional requirements.

NOTE: C079 is not authorized for part 135 single-engine passenger-carrying instrument flight rules (IFR) operations.

NOTE: For the purpose of this OpSpec/LOA, the word "sensor" is used to indicate all approved Runway Visual Range (RVR) systems.

B. Lower-Than-Standard Takeoff Minimums for Part 121 or 125. C078 allows for lower-than-standard takeoff minimums for operators conducting operations under part 121 or 125 (including LODA holders operating under part 125) with the following limitations and provisions:

1) Takeoff operations without runway centerline (RCL) lighting are not allowed at less than RVR 1000 (300 meters);

2) Takeoff operations using only visual references are not allowed at less than RVR 500 (150 meters);

3) Takeoff operations with visibility down to, but not lower than, RVR 300 (75 meters) using approved Head-Up Display (HUD) takeoff guidance systems;

4) Authorization for pilot assessment of touchdown zone (TDZ) RVR for takeoff when the installed RVR sensor is inoperative (see subparagraph H); and

5) Lower-than-standard takeoff minimums include paragraphs addressing takeoffs down to RVR 1600 (500 meters), RVR 1200 (350 meters), RVR 1000 (300 meters), RVR 600 (175 meters), and RVR 500 (150 meters).

C. Lower-Than-Standard Takeoff Minimums for Part 135. C079 allows for lower-than-standard takeoff minimums for operators conducting operations under part 135 with the following limitations and provisions:

1) Lower-than-standard takeoff minimums down to RVR 1600 (500 meters), RVR 1200 (350 meters), RVR 1000 (300 meters), or RVR 500 (150 meters) for part 135 domestic operations. Section 135.225(f) restricts part 135 domestic operators to 1-mile visibility for takeoffs at foreign or military airports unless approved in the certificate holder's OpSpecs.

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2) Each aircraft must be operated with a flightcrew consisting of at least two pilots. Use of an autopilot in lieu of a required second in command (SIC) is prohibited.

3) Each pilot in command (PIC) must have at least 100 hours of flight time as PIC in the specific make and model airplane used under this authorization. Each PIC must have satisfactorily completed the operator's approved training program (as applicable) and a qualification check for the minimums approved by this authorization. This includes the methods to be used to ensure compliance with the aircraft performance limitations during takeoffs with RVR less than RVR 1000 (300 meters), when applicable.

4) Any part 135 SIC authorized to manipulate the flight controls during lower-than-standard takeoff minimums must have at least 100 hours of flight time as a pilot in the specific make and model airplane, and must have satisfactorily completed the operator's approved training program and qualifications check for those minimums, when applicable.

5) For takeoffs when the RVR is less than RVR 1000 (300 meters), each airplane used must be operated at a takeoff weight that permits the airplane to achieve the performance equivalent to the takeoff performance specified in § 135.367 (for reciprocating-powered airplanes), § 135.379 (for turbine-powered airplanes), or § 135.398 (for commuter category airplanes).

6) There are some circumstances in which an operations inspector for a part 135 air carrier may consider issuing this OpSpec for airplanes certificated under Civil Air Regulations (CAR) 3 or 14 CFR part 23. Those airplanes have to meet the 14 CFR part 25 avionics equipment requirements necessary to hold a C079 authorization, which requires that each pilot station must have:

a) Operational equipment that displays a reliable indication of the following:

1. Aircraft pitch and bank information (attitude) (from a gyroscopic or attitude heading reference system source);

2. Aircraft heading (from a gyroscopic or magnetic direction indicating source);

3. Vertical Speed (VS);

4. Airspeed; and

5. Altitude.

b) An independent source of power for the equipment required by subparagraph C6)a)*1* and C6)a)*2*.

7) Single-engine passenger-carrying operations are not authorized.

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8) Lower-than-standard takeoff minima can be authorized for part 135 single-engine all-cargo operations in turbine-powered airplanes. The requirements of subparagraphs C(2) and C(5) above are not applicable to single-engine all-cargo operations in turbine-powered airplanes certificated for single pilot operation. However, the certificate holder must meet the takeoff performance requirements specified in part 135 subpart I for the category of airplane utilized. The POI authorizes single-engine all-cargo operations by selecting subparagraph 8 on OpSpec C079.

D. Lower-Than-Standard Takeoff Minimums Using HUD Systems. C078 and C079 provide for the authorization of lower-than-standard takeoff minimums using HUD systems with certain limitations and provisions. Although RVR 500 (150 meters) is the lowest authorized minimum when the takeoff is based upon outside visual references (with the exception of operations to foreign or military airports conducted under part 135), RVR 300 (75 meters) is the lowest authorized minimum when using an HUD system on a runway that has been determined to be served by a Localizer (LOC) providing CAT III rollout guidance, as indicated by a III/E/4 facility classification. As the HUD systems use the LOC signal for steering commands, the LOC needs to be III/E/4 certified (III=CAT III, E=accurate to at least 2,000 feet from the departure end of the runway, and 4=4,000 hours mean time between failures for the LOC signal). A listing of runways with III/E/4 LOC classifications is available on the Flight Operations Branch (AFS-410) website at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410.

E. Lower-Than-Standard Takeoff Minimums for TDZ RVR. C078 and C079 authorize lower-than-standard takeoff minimums for TDZ RVR 1600 (500 meters). If TDZ RVR is inoperative, mid-point RVR may substitute for TDZ RVR. Below RVR 1600, two operating RVR sensors are required and controlling. If more than two RVR sensors are installed, all operating RVR sensors are controlling, with the exception of a fourth far-end RVR sensor that may be installed on extremely long runways. A far-end RVR sensor is advisory only. C078 and C079 allow the selection of the following lower-than-standard takeoff minimums based on flightcrew training, checking, and allowed authorizations:

1) TDZ RVR 1200 (350 meters), mid-point (if installed) RVR 1200 (350 meters), and rollout RVR 1000 (300 meters).

2) TDZ, mid-point (if installed), and rollout RVR 1000 (300 meters).

3) TDZ, mid-point (if installed), and rollout RVR 600 (175 meters).

4) TDZ, mid-point (if installed), and rollout RVR 500 (150 meters). Tables 3-24A, Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 1, and 3-26A, Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 2, provide examples of tables that may be included in flightcrew manuals, such as the Flight Operations Manual (FOM).

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Table 3-24A. Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 1

Serviceable Runway Visual Aid Required	Lowest Allowable Takeoff Minimum Authorization
If an RVR sensor is not available:	
Adequate visual reference, *or* any *one* of the following: HIRL/CLL/RCLM	1/4 sm (400 m)
If an RVR sensor is available:	Note: Below RVR 1600, two operating RVR sensors are required. All operating RVR sensors are controlling (except per the note below for far-end sensors).
Adequate visual reference, *or* any *one* of the following: HIRL/CLL/RCLM	RVR 1600 (500 m)/NR/NR Mid-point can substitute for an unavailable touchdown.
Day: CLL or RCLM or HIRL Night: CLL or HIRL	RVR 1200 (350 m)/1200 (350 m)/1000 (300 m)
RCLM and HIRL, or CLL	RVR 1000/1000/1000 (300 m)
HIRL and CLL	RVR 600/600/600 (175 m) or RVR 500/500/500 (150 m)
With an approved HUD takeoff guidance system, HIRL, and CLL	RVR 300/300/300 (75 m)

NOTE: Extremely long runways (e.g., DEN 16R) utilize four RVR sensors (i.e., TDZ, mid, rollout, and far-end). When a fourth far-end RVR value is reported, it is not controlling and is not to be used as one of the two required operative RVR sensors.

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Table 3-26A. Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 2

Runways with 1 RVR Sensor		
RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
TDZ RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
	RVR 24 or ½	RVR 50 or 1

Runways with 2 RVR Sensors						
Both RVR sensors are required and controlling.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL			
TDZ RVR 3 Rollout RVR 3	TDZ RVR 5 Rollout RVR 5	TDZ RVR 10 Rollout RVR 10	TDZ RVR 12 Rollout RVR 10	TDZ RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
					RVR 24 or ½	RVR 50 or 1

Runways with 3 RVR Sensors						
Two operating RVR sensors are required. All operating RVR sensors are controlling.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL			
TDZ RVR 3 Mid RVR 3 Rollout RVR 3	TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	TDZ RVR 12 Mid RVR 12 Rollout RVR 10	TDZ RVR 16 (if TDZ inop) Mid RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
					RVR 24 or ½	RVR 50 or 1

Runways with 4 RVR Sensors						
Two RVR sensors below must be operational. All operating RVR sensors are controlling except far end, which is advisory only.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL			
TDZ RVR 3 Mid RVR 3 Rollout RVR 3	TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	TDZ RVR 12 Mid RVR 12 Rollout RVR 10	TDZ RVR 16 (if TDZ inop) Mid RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
					RVR 24 or ½	RVR 50 or 1

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F. RVR Applicability to Lower-Than-Standard Takeoff Minimums.

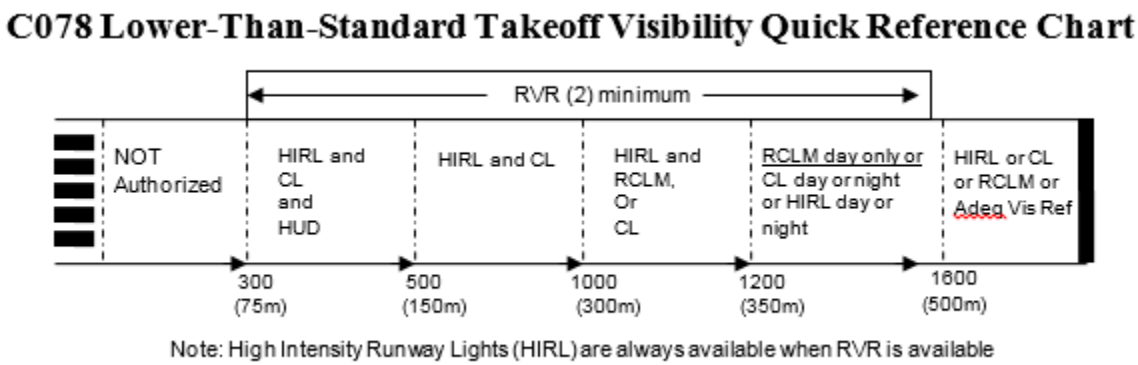
1) Other than the authorization for RVR 1600 (500 meters), which permits use of Runway Visibility Values (RVV) under the appropriate authorization for an operator issued C078 or C079, all the authorizations in C078 and C079 are based on RVR reports that are generated by RVR sensors.

a) "Controlling" RVR means that RVR reports are used to determine operating minimums whenever operating minimums are specified in terms of RVR, and that RVR reports are available for the runway being used.

b) All CAT I operating minimums below ½ statute mile (RVR 2400) and all CAT II and III operating minimums are based on RVR. The use of visibility is prohibited because the reported visibility may not represent the seeing-conditions on the runway. (See Volume 4, Chapter 2, Section 1, paragraph 4-168.)

c) All takeoff minimums below ¼ statue mile visibility require RVR values, and the use of RVV for takeoff clearances is prohibited. In these situations, RVR is said to be "controlling"; that is, RVR must be operating and reporting (by requirement, High Intensity Runway Lights (HIRL) also must be working) and at a value equal to or greater than the lowest authorized RVR for the particular clearance.

Figure 3-229. C078 Lower-Than-Standard Takeoff Visibility Quick Reference Chart



NOTE: The diagram above is intended as a memory aid intended to help in remembering the various RVR breakdowns and associated requirements within each grouping. For example, two RVR sensors are required for all takeoffs at RVR values less than 1600 (500 meters) (shown above the runway).

2) The following requirements and restrictions apply to the use of RVR values below 1600 feet (500 meters) (in the C078 and C079 templates, simplified wording is used):

a) Where only two RVR sensors are installed, the TDZ and rollout RVR sensors are both required and controlling.

b) Where three RVR sensors are installed on the runway to be used:

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1. The TDZ, mid, and rollout RVR reports are controlling for all operations.

2. The failure of any one RVR will not affect operations provided the remaining two RVR sensors are reporting values at or above the appropriate minimums in this subparagraph.

NOTE: Extremely long runways (e.g., DEN 16R) utilize four RVR sensors (e.g., TDZ, mid, rollout, and far-end). When a fourth far-end RVR value is reported, it is not controlling and is not to be used as one of the two required operative RVR systems.

G. Flightcrew Training and Qualification Requirements. If an operator requests authorization to conduct lower-than-standard takeoffs, the flightcrew must be trained and qualified in their respective crew positions for the applicable takeoff minimums requested. The PIC is ultimately responsible for ensuring that the flightcrew members are appropriately qualified before conducting an authorized lower-than-standard takeoff.

1) Individual pilots must be trained in their respective crew positions (parts 121 and 135) and checked (parts 121, 125, and 135) in takeoffs using the appropriate requested minimums before being approved for conducting such takeoffs.

2) Pilot qualification must consist of an initial check that includes one takeoff at the lowest requested takeoff minimums (full flight simulator (FFS) or simulated in the aircraft with a view limiting device). It is also required during each pilot's recurrent qualification cycle.

3) Additional crew qualification for check pilots or a qualified FAA inspector, beyond that shown herein for regular flightcrews, is not required.

4) POIs must ensure that operators requesting lower-than-standard takeoff minimums provide appropriate training for flightcrews, including the procedures listed below, as appropriate:

- Confirming the takeoff runway alignment (Safety Alerts for Operators (SAFO) 07003 includes guidance and/or advisory information about acceptable techniques);
- Rejected takeoffs in a low-visibility environment;
- Low-visibility instrument takeoff cross-check priorities;
- Engine failure during critical phases of takeoff in low visibility;
- Acceleration and climb disorientation factors and illusions;
- Use of HUD takeoff guidance systems (when installed in aircraft for RVR 300 authorization only);
- Taxiing in a low visibility environment with emphasis on preventing runway incursion, and Surface Movement Guidance and Control System (SMGCS) training Advisory Circular (AC) 120-57, Surface Movement Guidance and Control System, current edition, includes guidance and/or advisory information about acceptable techniques;
- Taxiway critical areas;

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- Crew coordination and planning;
- Required ground-based visual aids (such as stop bars and taxi holding position lights);
- Required ground-based electronic aids (such as instrument landing system (ILS) and transmissometers); and
- Determination of takeoff alternate airports.

H. Pilot Assessment of IFR Lower-Than-Standard Takeoff Minimums. C078 and C079 allow pilots to make an assessment of the touchdown RVR when the TDZ RVR sensor is inoperative, is not reported, or the pilot determines that the reported TDZ RVR report is in error. This assessment, when equal to or greater than the TDZ RVR requirement for takeoffs made with only outside visual references, or for takeoffs using HUD systems, can be used for takeoff when mid and rollout RVR sensors are available, and are equal to or greater than the required minimums. To be authorized for this pilot assessment, each operator must meet the following requirements:

1) For each specific runway for which the assessment is allowed, have an FAA-approved procedure for assessing RVR values that includes:

a) Identification of actual distances between runway lights (from 160 feet to 200 feet) on the particular runway for the takeoff in question.

b) Identification of an appropriate number and type of runway lights that matches the particular RVR minimums or required visual distance for the takeoff being made.

c) Identification of runway markings of known spacing with corresponding distances that must be visible to the pilot from the flight deck when the aircraft is in the takeoff position.

2) This procedure must include the effects of variability of runway light intensity settings and changing ambient lighting (day or night). Flightcrew training and checking must assess knowledge of this specific subject area by requiring crews to relate runway markings and number of lights visible to specific known distances.

3) For each type of runway where an assessment is allowed, have an FAA-approved procedure for describing the actions to be taken when local visibility conditions, as determined by the pilot, indicate that a significantly different visibility exists from that reported for the TDZ recorded by RVR sensor. The procedure will address types of runway markings, runway lights and distances between lights, and any other runway environmental cues that permit precise distance evaluations by flightcrews.

4) For part 121 operations, for each runway where an assessment is allowed, have an FAA-approved procedure for coordinating release with air traffic control (ATC) and dispatch.

5) For part 135 air carriers, the operator must have an FAA-approved procedure for conducting pilot assessment of takeoff visibility contained in its manual, as defined by § 135.21. That procedure will cover the following requirements:

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a) How to determine actual visibility measured in number and type of runway lights that are seen, or markings of known spacing that are visible to the pilot when viewed from the cockpit in the takeoff position.

b) How all flightcrew members will be trained and checked in the procedures used to determine visibilities, as described above.

6) Have FAA-approved procedures for RVR assessment, for determining that TDZ RVR sensor reports are in error, and for takeoff and flight release coordination in operating manuals and in such materials that are readily available to the flightcrew in the cockpit.

7) Have an FAA-approved training program and an FAA-accepted validation testing method for the FAA-approved procedures. No flightcrew member may be used in these operations until this portion of the approved training program is completed satisfactorily.

OPSPEC C080—TERMINAL AREA IFR OPERATIONS IN CLASS G AIRSPACE AND AT AIRPORTS WITHOUT AN OPERATING CONTROL TOWER FOR SCHEDULED PASSENGER OPERATIONS. C080 is used to authorize terminal-area instrument flight rules (IFR) operations for scheduled passenger operations in Class G airspace or at airports without an operating control tower.

A. Authorizing Scheduled Terminal-Area IFR Operations in Class G Airspace. Before authorizing scheduled terminal-area IFR operations in Class G airspace, or at airports without an operating control tower, the principal operations inspector (POI) must ensure the operator has sufficient content in its manual(s) and training program to cover common traffic advisory frequency (CTAF) and pilot controlled lighting (PCL) information and procedures. The POI must also obtain and list the following information in C080.

1) Names of airports.

2) Sources of weather information to be used by flightcrews (see Volume 3, Chapter 26, Section 3; and Volume 3, Chapter 2).

3) Source of traffic advisories (TA) and airport advisories.

B. Sources of TAs and Airport Advisories. Certificate holders may be authorized to use any two-way radio source of air TA information listed in the Aeronautical Information Manual (AIM) (for operations in U.S. airspace) or equivalent Aeronautical Information Publication (AIP) (for foreign operations).

1) These sources include CTAFs, Aeronautical Advisory Stations (UNICOM), Aeronautical Multicom Stations (MULTICOM), and Flight Service Stations (FSS).

2) If an air TA source is also suitable for determining the status of airport services and facilities, it is the only source which needs to be listed in C080.

3) When airport services and facilities information is on a different frequency, both sources should be listed in C080.

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4) In cases where two sources are listed at the same airport, inspectors must ensure the operator's manuals have procedures that require pilots to continuously monitor and use the TA frequency when operating within 10 nautical miles (NM) of the airport. The procedures should require communication concerning airport services and facilities to be completed while more than 10 NM from the airport.

5) At some airports, no public use frequencies may be available. In those cases, a certificate holder must arrange for radio communication of essential information including surveillance of local or transient aircraft operations by ground personnel. Ground personnel, who operate a company radio for airport status and traffic advisory, must be able to view airspace around the airport.

6) OpSpec C080 may need to be issued to the certificate holder authorized scheduled passenger operations in order for the C081 to be issued.

C. Part 125 Operators. C080 is not applicable for part 125 operators.

OPSPEC/MSPEC/LOA C081—SPECIAL INSTRUMENT AND RNAV VISUAL FLIGHT PROCEDURES.

A. Applicability. OpSpec/MSpec/LOA C081 authorizes special non-14 CFR part 97 instrument approach procedures (IAP) and departure procedures (DP). It also authorizes the use of special Standard Terminal Arrivals (STAR) and Area Navigation (RNAV) Visual Flight Procedure (RVFP) operations. C081 applies to all certificate holders/operators/program managers conducting airplane operations under 14 CFR parts 91 (including part 91K), 121, 121/135, 125 (including 125 Letter of Deviation Authority (LODA) holders), and 135. For 14 CFR part 129 foreign air carriers, the guidance for OpSpec C381 is in Volume 12, Chapter 2, Section 5.

B. Helicopter Authorization. Guidance for submitting and processing "special" helicopter instrument procedures will use this guidance. Use OpSpec/LOA H122 to issue a "special" to parts 91, 91K, 121/135, and 135 operators.

C. Responsibilities. The Flight Technologies and Procedures Division (AFS-400) provides policy, oversees approved procedure developers, and approves special instrument procedures and RVFPs that are authorized for specific certificate holders/program managers/operators by their principal operations inspector (POI). The regional Flight Standards division (RFSD) NextGen Branch (RNGB/AXX-220) is the field focal point that assists in the design, distribution, and coordination of special instrument procedures and RVFPs within their regional geographic boundaries. POIs authorize the use of approved special instrument procedures and/or RVFPs via OpSpec/MSpec/LOA, as appropriate.

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D. Program Tracking and Reporting Subsystem (PTRS) Activity Codes.

1) PTRS Activity Codes—Initial Issuance.

- Special Authorization: 1404.
- Approval of Special Navigation Procedures: 1410.
- Special Performance Authorizations: 1441.

2) PTRS Activity Codes—Future Actions or Surveillance.

- Surveillance Operator Facility: 1635.
- Surveillance Miscellaneous Executive Corporate Operator: 1682.
- Surveillance Miscellaneous 14 CFR Part 125 LODA Holder: 1683.

E. Background. Instrument Flight Procedures (IFP) not published in the Federal Register (FR) are identified as "special procedures." Any instrument procedure serving a private-use, permission-required airport/heliport must be a special procedure. Special procedures may also be developed to lower approach and/or departure minimums. Aircraft equipment/avionics, performance standards, and/or crew training may be used to mitigate factors that would require higher minimums. Specials may also require the use of landing aids, communications, or weather services not available for public use. For more information, refer to the current edition of FAA Order 8260.60, Special Instrument Procedures.

F. Development of a New Special or RVFP. Refer to Order 8260.60 for developing special instrument procedures and the current edition of FAA Order 8260.55, Special Area Navigation Visual Flight Procedures, for information on developing RVFPs.

1) Specials are typically developed and/or maintained by either an FAA-approved third party or by the FAA via a reimbursable agreement. The cost of the reimbursable agreement may be waived or reduced if the special is determined to be in the public's interest. Development and approval will take 12 to 24 months or more in most cases.

2) RVFPs are developed by the operator with oversight by the FAA Flight Standards Service (AFS).

NOTE: A list of approved specials and RVFPs is available at https://nfdc.faa.gov/xwiki/bin/view/NFDC/Flight+Procedures.

G. Authorize an Approved Special or RVFP. The operator requesting the procedure must submit a written request, via the POI, to the RNGB in the region responsible for the physical landing area. This request does not require a memo from the POI. The RNGB will then provide the POI with the appropriate information. For example, to authorize a special approach procedure into Aspen, CO, contact the RNGB (in this case ANM-220) to get the required information.

NOTE: The RNGB, at their discretion, may inform the POI that RNGB concurrence is required (typically for procedures with more complex performance, equipment, or training requirements).

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1) FAA 8260 Forms. The RNGB will email the POI the appropriate 8260 forms for each procedure. The RNGB will include a form that defines the procedure for charting purposes and a form that describes any applicable operator requirements (if required). These forms are:

a) For new approaches, FAA Form 8260-7A, Special Instrument Approach Procedure, defines the procedure, and FAA Form 8260-7B, Special Instrument Procedure Authorization, defines the operator requirements, with FAA Form 8260-7B requiring POI and operator signatures.

b) For older approaches, FAA Form 8260-7 defines the procedure, and FAA Form 8260-10, Standard Instrument Approach Procedure (Continuation), defines the operator requirements, with FAA Form 8260-7 requiring POI and operator signatures.

c) For departures, FAA Form 8260-15A/B/C, Takeoff Minimums and Obstacle Departure Procedures (ODP)/Graphic Departure Procedures (DP)/Departure (Data Record), defines the procedure, and FAA Form 8260-7B defines the operator requirements, with FAA Form 8260-7B requiring POI and operator signatures.

NOTE: Department of Defense (DOD) requests for specials will be managed by the RNGB in the region responsible for the special or RVFP (with AFS-400 coordination, if necessary). The RNGB may supply the DOD with appropriate forms. The RNGB should maintain records and contact information so any revisions or possible cancellation of the special may be disseminated to the DOD point of contact (POC).

2) Form Review and Distribution. The POI will provide the 8260 forms to the operator.

a) POIs will review the operator's existing procedures, documentation, equipment, manuals, and training to ensure any requirements specific to the procedure and listed on the 8260 forms are satisfactorily addressed. These requirements may require special aircraft performance, equipment, avionics/software, and/or crew training. If existing operator procedures do not address all requirements, the operator must submit a plan to the POI with the necessary changes needed to comply with the requirements of the special procedure. This plan must address any aircraft specific requirements for each make, model, and series (M/M/S) that they plan to use to fly the special. Once the implementation plan is accepted, the operator may receive the applicable signed forms needed to continue the process. Contact the Aircraft Evaluation Group (AEG) for aircraft specific questions and the RNGB for technical questions about special procedures and requirements. Ensure that the OpSpec/MSpec/LOA authorization includes an entry in the fourth column of Table 1 listing only the aircraft approved to fly the procedure(s). This ensures that any new aircraft added at a future date are not inadvertently authorized without conducting the appropriate review. If the 8260 forms or the RNGB require a demonstration flight, see subparagraph G5) below.

b) POIs and the operator's representative will sign FAA Form 8260-7B after the POI has discussed the procedure requirements with the operator and the operator has provided the POI with documentation showing compliance with procedure requirements (i.e., aircraft

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performance, aircraft equipment, crew qualifications, etc.) or an implementation plan that shows a reasonable expectation that they will be able to safely meet all procedural requirements. If RNGB concurrence is required, the RNGB may issue their concurrence to the POI by email or, upon request, a memo (the RNGB will determine if they want to maintain a record of their request for concurrence and their actual concurrence of the authorization in their files). The POI will give a signed copy of the FAA Form 8260-7B to the operator and maintain a signed copy in the office file. The POI will notify the RNGB via email when appropriate forms are signed and forward those forms, if requested by the RNGB (RNGBs may individually determine if they will require a copy of the signed forms to be maintained in their files). These forms allow the operator to receive customized charts and navigation database coding (if applicable) from chart vendors and also training from most contract training vendors. It may take some time for the operator to fully implement their plan and qualify all relevant personnel to conduct the procedure(s). The OpSpec/MSpec/LOA must not be authorized until the operator has implemented their plan and is fully prepared to fly the procedure.

NOTE: Signing the back of FAA Form 8260-7B or 8260-7 is not the formal issuance of the authority for use of a special procedure. That is conveyed by the issuance of OpSpec/MSpec/LOA C081, H122, or LOA C381.

c) If applicable, the principal maintenance inspector (PMI) and principal avionics inspector (PAI) should review the requirements contained in the procedure and affirm for the record (such as a PTRS record of review) that the aircraft type(s) in question can perform the procedure. Some special instrument procedures require nonstandard/higher missed approach climb gradients and specific qualities or levels of avionics.

3) Training. A certificate holder/program manager's training program must include training on the procedure and equipment required to accomplish the procedure. An operator/company must be proficient on the procedure and the equipment required to accomplish the procedure. All FAA Form 8260-7B and 8260-10 training requirements must be met for all procedures. Training for specific procedures may be required if the performance, equipment, services, terrain effects, or a combination of factors is emphasized to ensure a safe operation. However, if the operator is seeking authorization for multiple specials or RVFPs, training for each specific procedure may not be required if the training is duplicative, the multiple specials are basic instrument approaches to a private-use landing area, and no additional performance or training requirements for a specific airfield are noted on forms.

NOTE: For questions about training at 14 CFR part 142 training centers, contact the Training Center Program Manager (TCPM). The Air Transportation Division (AFS-200) is responsible for part 142 training center policy and guidance.

4) Charts. The RNGB will send the POI the 8260 forms described above. These forms will be used by the operator to get a chart produced. The operator will submit a copy of the completed chart to the POI. Upon receipt, the POI will forward a copy of the chart to the RNGB for distribution in accordance with Order 8260.60. The Flight Standards District Office (FSDO)/certificate management office (CMO) must not authorize operational implementation of the procedure until the chart is received by the RNGB. In some cases, a third-party developer

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will create a chart for the operator and submit it to the RNGB for distribution. The RNGB will distribute this chart to the POI who, in turn, will give it to the operator.

5) Demonstration Flights. The 8260 forms may require a demonstration flight, or the POI and the RNGB may require a demonstration flight, at their discretion, to verify the suitability of the operator's aircraft, equipment, procedures, and profiles, as described in the subparagraphs below.

a) Special Pilot Qualification Airports—Part 121. Part 121 air carriers are required to perform an in-flight demonstration of a new special IFP at a special pilot qualification airport. If an existing special IFP is amended, a demonstration flight may be required at the discretion of the POI and the RNGB based on the changes to the procedure. OpSpec C050 is used to authorize part 121 air carrier certificate holders to conduct instrument flight rule (IFR) operations into special airports requiring special airport qualification and validation in accordance with the provisions and limitations of the OpSpec and part 121, § 121.445. The list of special pilot qualification airports can be found at http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=OPSS Guidance.

b) Other Airports—Parts 91, 91K, 121, 125, 129, and 135. If the airport served is not a special pilot qualification airport and a demonstration flight is not stipulated on FAA Form 8260-7B, a demonstration flight may still be required at the discretion of the POI and the RNGB before an operator can use a new or amended special IFP. Flight simulator and tabletop reviews are other ways to confirm an operation can be conducted safely. The POI and the RNGB should consider the operator's experience at that airport, profiles and procedures, aircraft capabilities, deviation from IFP criteria, and local environmental considerations (e.g., terrain, radar and communications coverage, and obstacles) when determining if a flight demonstration, simulator, or tabletop review is required.

c) Requirements. If the POI and the RNGB require a demonstration flight, they must dictate the requirements and criteria for satisfactorily completing the demonstration. The POI may issue a provisional authorization allowing an operator to conduct a special IFP if an FAA Operations inspector is observing the flight to evaluate that procedure during routine operations in visual meteorological conditions (VMC). The provisional authorization should only be used after a careful evaluation has been made of the special IFP for safety-related factors. Issue this provisional authorization by adding the special IAP to the appropriate OpSpec/MSpec/LOA (C081, H122, or LOA C381) with the provision that the authorization is only applicable to flights observed by an FAA Operations inspector in VMC.

6) Authorization. POIs will issue the approved procedure via OpSpec/MSpec/LOA C081 (H122 for helicopter operations) as described below, once the operator has implemented their plan to address all of the FAA Form 8260 requirements (including training, dispatch, equipment, performance, etc.), has submitted a chart to the POI (and the POI has forwarded that chart to the RNGB), satisfactorily completed the demonstration flight (if required), and the RNGB concurs with the authorization (if required). Enter the aircraft M/M/S that have been reviewed and found suitable in the "Airplane (Rotorcraft) M/M/S" column of Table 1. The POI must review the specific FAA Form 8260-7B requirements (and

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obtain concurrence from the RNGB, if necessary) before authorizing any additional aircraft M/M/S and/or any aircraft that has modified its avionics package.

NOTE: The issuing authority for "special procedures" remains with the FAA. An operator who has been issued authority to use a special procedure will not authorize other operators to use the procedure. If additional users wish to be authorized, they must apply to use the procedure through their POIs and the appropriate RNGB.

a) The RNGB will notify POIs of all approved operators when a special or RVFP is amended or canceled. This notification will typically include an effective date when the old procedure is canceled (if applicable), and an effective date when the new procedure is active. Procedure effective dates can be critical to flight safety. Procedures must not be used after the expired effective date. For example, some procedure amendments use the same fix names but with the fixes in a slightly different location, and those fix locations will change on the effective date, allowing the use of the expiring procedure until the effective date and the new procedure on and after the effective date. If the procedure has a specific effective date set by the RNGB, add a reference to that effective date in the "Limitations and Provisions" column of Table 1 for the new procedure as well as the expiring procedure (if applicable).

b) For new, amended, or canceled specials or RVFPs, the POI will issue the OpSpec/MSpec/LOA revision in accordance with this subparagraph within 30 days of RNGB notification or by the effective date, whichever is later. If the POI/operator cannot meet this deadline, the POI must, at a minimum, remove the expiring procedure from the operator's authorization by the effective date canceling that special or RVFP. To ensure that operators are using the correct, current procedure, the POI will enter the procedure amendment number (ORIG, 1, 2, etc.) as part of the procedure name in the second column of Table 1. POIs may also want to add a reference to that effective date in the "Limitations and Provisions" column of Table 1 for the new procedure. POIs will reference the cancellation date of the expiring procedure in the "Limitations and Provisions" column of Table 1 or remove the authorization for the expiring procedure (if applicable).

c) The RNGB has the authority to rescind their concurrence with an operator authorization if the operator deviates from the procedure requirements, the RNGB becomes aware of any additional operational/training requirements, or any other factors that affect the safe operation of the procedure become known. The POI must rescind authorization for use of a procedure immediately upon notification from the RNGB in accordance with 14 CFR part 119, § 119.51.

H. Table 1 Instructions. When authorizing a special or RVFP, enter the airport identifier (International Civil Aviation Organization (ICAO)), city, airport name, state, full procedure name, airport state, airplane M/M/S, and any limitations and/or provisions in Table 1 as shown in the example below (Figure 3-67L, Sample C081/H122 Table 1 – Authorized Airports, Procedures, and Airplane (Rotorcraft)). The Web-based Operations Safety System (WebOPSS) does not provide drop-down fields for the instrument procedures to be listed in OpSpec/MSpec/LOA C081 or H122.

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Figure 3-67L. Sample C081/H122 Table 1 – Authorized Airports, Procedures, and Airplane (Rotorcraft)

Airport Identifier (ICAO)	Procedure Name, ORIG or AMDT #	Airport State	Airplane (Rotorcraft) M/M/S	Limitations and Provisions
KJFK; New York/John F. Kennedy Intl, NY	RNAV (RNP) RWY 13R, AMDT 2	NY	B-737-800	
KJFK; New York/John F. Kennedy Intl, NY	RNAV Visual RWY 13R, AMDT 2	NY	All B-767 All B-757	
KRNO; Reno/Reno/Tahoe Intl, NV	ILS/DME RWY 16R, AMDT 3	NV	All A-319 All B-757	
99OI, Fostoria Community Hospital, Fostoria, OH	Copter RNAV (GPS) 10, ORIG-B	OH	EC-130-T2 BHT-412-EP	Authorized on and after April 4, 2013
KEGE, Eagle County Regional Airport, Eagle, CO	ILS or LOC/DME RWY 25, ORIG	CO	G550 G650	

1) Airport Identifier (ICAO). Select airport using ICAO airport identifier. Field will populate with ICAO Identifier, City, Airport Name, and State. Use third column when accomplishing state query.

2) Procedure Name. Use procedure name found on FAA Form 8260-7 or 7B to complete this block in the template. This will aid the WebOPSS query process. These procedures are subject to revision, so ensure that the amendment number (including ORIG for "original") is included in the procedure name.

3) Airport State. List airport state with two-letter identifier. Added to aid WebOPSS query.

4) Airplane M/M/S. List airplanes (rotorcraft) that are approved to fly the special procedure. To authorize a new airplane (rotorcraft) to use a special that is already authorized for an existing airplane (rotorcraft), contact the geographic RNGB for a joint review of the new aircraft's (rotorcraft's) capabilities. POIs should ask the responsible RNGB if concurrence is required to authorize any new airplane (rotorcraft) to fly these procedures.

5) Limitations and Provisions. For procedures that require specific review and evaluation of aircraft performance, equipment/avionics, training, or other criteria that would require that an authorization be limited to a specific airplane (rotorcraft) M/M/S, enter the limitation or provision after the approved M/M/S to ensure that any future airplane (rotorcraft) added by the operator is not authorized by default without completing the same review of the new airplane (rotorcraft) capabilities.

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I. Additional Requirements. The following OpSpec/MSpec/LOAs may be required for the authorization of specific procedures.

1) OpSpec C081 or LOA C381.

a) OpSpec/MSpec/LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. Parts 91K, 121, 121/135, 125 (including 125 LODA holders), and 135 certificate holders/operators/program managers must be issued C052. The "type" (e.g., RNAV, instrument landing system (ILS), and localizer-type directional aid (LDA)) of instrument approach listed in C081 in Table 1 must be listed in the table of authorized approaches in C052. RVFP and Required Navigation Performance Authorization Required (RNP AR) procedures will not be listed in C052.

b) OpSpec/MSpec/LOA C063, Area Navigation (RNAV) and Required Navigation Performance (RNP) Terminal Operations. Parts 91K, 121, 121/135, 125 (including 125 LODA holders), and 135 certificate holders/operators/program managers may require a C063 authorization. C063 authorizes RNAV 1, RNP 1, and other Performance-based Navigation (PBN) flight operations, and is required for certificate holders/operators/program managers authorized to conduct RNAV 1, RNP 1, or other PBN flight operation in C081.

c) OpSpec/LOA C064, Terminal Area IFR Operations in Class G Airspace and at Airports Without an Operating Control Tower—Nonscheduled Passenger and All Cargo Operations. Parts 121, 121/135, 125 (including 125 LODA holders), and 135 certificate holders may require a C064 authorization. Determine the type of airport and operation being conducted in association with the C081 authorization.

d) OpSpec C077, Terminal Flight Rules Limitations and Provisions. Parts 121, 121/135, and 135 certificate holders may require a C077 authorization. C077 provides arrival and departure guidance for instrument and visual flight operations (e.g., visual flight rule (VFR) departure on an IFR clearance). C077 provides guidance on the use of a charted visual flight procedure (CVFP). Determine if a VFR operation into or out of an airport is part of the C081 authorization.

e) OpSpec C080, Terminal Area IFR Operations in Class G Airspace and at Airports Without an Operating Control Tower for Scheduled Passenger Operations. Parts 121 and 121/135 certificate holders may require a C080 authorization. Determine the type of airport and operation being conducted in association with C081 authorization.

f) OpSpec/MSpec/LOA C384, Required Navigation Performance Procedures with Authorization Required. Parts 91, 91K, 121, 121/135, 125 (including 125 LODA operators), and 135 certificate holders/operators/program managers should be authorized C384 when an RNP AR-like special procedure, normally titled RNAV (RNP), is authorized in C081. Approval to fly an RNP AR-like special without C384 will be granted by AFS-400 and documented on FAA Form 8260-7B. The authorization in C384 must contain the "lowest RNP" and "additional aircraft capabilities" meeting the requirements of the special procedure authorized in C081.

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2) Helicopter OpSpec/MSpec/LOA H122.

a) OpSpec/MSpec/LOA H102, Basic Instrument Approach Procedure Authorizations—All Airports. Parts 91, 91K, 121/135, and 135 certificate holders/operators/program managers must be issued H102. The "type" of approach authorized in H122 must be authorized in H102.

b) OpSpec/MSpec/LOA H112, Instrument Approach Operations Using an Area Navigation System. Parts 91, 91K, 121/135, and 135 certificate holders/operators/program managers may require an H112 authorization.

c) OpSpec/MSpec/LOA H113, Special Terminal Area IFR Rotorcraft Operations in Class G Airspace—Nonscheduled Passenger and All-Cargo Operations. Parts 91, 91K, 121/135, and 135 certificate holders/operators/program managers may require an H113 authorization.

d) OpSpec/MSpec/LOA H121, Special Terminal IFR Rotorcraft Operations in Class G Airspace—Scheduled Passenger Operations. Parts 91, 91K, 121/135, and 135 certificate holders/operators/program managers may require an H121 authorization.

3) Example. Table 2 (Figure 3-67M, Sample C081/H122 Table 2 – Additional Authorizations) below shows a matrix of airplane and rotorcraft additional authorizations. C052 and H102 are required because they authorize the "type of procedure" requested by C081. The "may be required" authorizations are based on the "type of operation" sought along with the procedure. Authorizations are not permitted for those parts with an NA.

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Figure 3-67M. Sample C081/H122 Table 2 – Additional Authorizations

NOTE: The table in this guidance is a graphical depiction on additional authorizations that are: required, may be required, or not applicable.

Airplane						
	C052	C063	C064	C077	C080	C384
91	Optional	Optional	NA	NA	NA	*
91K	R	*	NA	NA	NA	*
121	R	*	*	*	*	*
121/135	R	*	*	*	*	*
135	R	*	*	*	*	*
125	R	*	*	NA	NA	*
125 LODA	R	*	*	NA	NA	*
Rotorcraft						
	H102	H112	H113	H121		
91	NA	NA	NA	NA		
91K	R	*	*	NA		
121/135	R	*	*	*		
135	R	*	*	NA		

R – Required * – May Be Required NA – Not Applicable

J. Amendments. The geographic RNGB will notify the POI of procedure amendments and send the POI all of the new forms required for the amendment. In most cases, this entire process will need to be reviewed to ensure operator compliance with the amended procedure requirements, and the operator will be required to get a new chart, which they must submit to the POI. The POI will forward the new chart to the RNGB for distribution.

K. Cancellations. If an operator is no longer going to use a procedure, the POI must remove the procedure from the operator's OpSpec/MSpec/LOA and advise the appropriate RNGB that the operator is no longer authorized to use that procedure. If the procedure is canceled, the RNGB will notify the POI, and the POI will remove the procedure from the operator's OpSpec/MSpec/LOA.

L. Notices to Airmen (NOTAM). Special procedures exist outside of the normal notification system for standard instrument procedures. Many special procedures serve landing areas that are in the public NOTAM system, and public NOTAMs will be issued for specials whenever possible. However, sometimes it is not possible to issue a NOTAM for a special, which requires updates and changes to be issued to all authorized operators through their POI. Therefore, it is critical to record, maintain, and update operator contact data with the appropriate RNGB.

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M. Adding an Aircraft. If the operator requests to fly an authorized RVFP or special procedure in a new aircraft (e.g., one that they are not currently authorized to fly), the POI should review this entire process to ensure the suitability of the proposed aircraft.

N. Oversight and Auditing. Oversight management and guidance of operator authority and use of special instrument procedures is not currently in the FAA automated work programs. It may occur under the initiative of planned activities by POIs for those certificated operators who are addressed in National Work Programs for inspectors. POIs are requested to review the OpSpec/MSpec/LOA for their assigned operators annually to ensure the currency of the special instrument procedures. Part 91 operators are normally not addressed in the national programs. It is therefore critical that this certification and approval process be tracked directly by the FSDO. The FSDO should maintain files (paper/electronic, etc.) for operators authorized to conduct special procedures and conduct an annual review of the files to ensure that current information is maintained and disseminated.

1) The documentary elements of the special instrument procedure (e.g., FAA Form 8260 series, a copy of the current chart as issued to the operator, and related correspondences) should be maintained in the FSDO's part 121, 125, 129, or 135 operator files. The FSDO should create and maintain a specific file for parts 91 and 91K operators that are authorized to use special IAPs.

2) The RNGB must be supplied with a copy of the current chart and any subsequent updates or changes. At their discretion, the RNGB may require a copy of the signed 8260 forms. The POI should review the status of the special authority annually and advise the RNGB of any changes (i.e., aircraft type, company's existence, etc.) The PMI and PAI should apply the same review to any aircraft changes that they did for the initial authority. A record of such review should be kept in the part 121 or 135 file.

3) The RNGB will advise POIs of changes or updates to the procedures and distribute such information in accordance with Order 8260.60.

O. Additional Information. LOA C381, Special Instrument Procedures, Regional Authorization, allows FSDO inspectors and the RNGB to authorize multiple part 91 pilots and operators to use special instrument procedures. This LOA is only applicable to part 91 operators, and is not required to be used in lieu of individual LOA C081 authorizations. The geographical RNGB will determine which procedures are applicable for LOA C381. All other special terminal instrument procedures issued to part 91 operators, including those procedures that require additional pilot training or specific equipment and/or aircraft performance requirements, must be authorized using LOA C081 for each operator on a case-by-case basis.

OPSPEC C091—OPERATIONAL REQUIREMENTS AIRPLANE DESIGN GROUP VI (ICAO GROUP F). (OPTIONAL.)

A. Applicability. OpSpec C091 must be issued to U.S. certificate holders who conduct takeoff and landing operations using Airplane Design Group VI (ADG-VI), International Civil Aviation Organization (ICAO) Group F, within or outside the United States on runways as narrow as 150 feet (45 meters) wide.

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B. Operational Requirements. OpSpec C091 specifies the runway width, Obstacle Free Zone (OFZ), and other airport requirements for these aircraft. ADG-VI are airplanes with a wingspan from 214 feet (65 meters) up to 262 feet (80 meters). It closely parallels ICAO Group F criteria. However, where the ICAO Code designation is also dependent on main gear track width, the Federal Aviation Administration (FAA) criteria is dependent on the wingspan of the aircraft and tail height. The current edition of Advisory Circular (AC) 150/5300-13, Airport Design, establishes airport requirements for the different airplane design groups, including runway width requirements, taxiway width requirements, OFZ dimensions, and other airport considerations. Historically, the FAA has authorized deviations from these established standards on an air carrier-by-air carrier basis after evaluating the specific air carrier's operational procedures and flightcrew training program and standards. Operational limitations were typically part of the air carrier's operational authorization to operate as per the specific deviation granted to the air carrier.

NOTE: In order to allow ADG-VI aircraft operations on existing infrastructure, U.S. Airplane Design Group V (ADG-V) airports accepting scheduled service of ADG-VI aircraft are required to undergo a special modification of standards (MoS). The MoS applies to those portions of the airport that do not comply with ADG-VI standards.

C. U.S. Certificate Holders and Principal Operations Inspector (POI) Actions. Prior to initiating service to any ADG-V/ICAO Group E airport with an aircraft designed for ADG-VI/ICAO Group F, the certificate holder must supply the POI with the following:

- Evidence that the requirements of OpSpec C091 are met for the proposed runway(s) of operations at those airports, including potential alternates.
- For destination airports, U.S. airport MoS approval for that make and model (e.g., A-380 or B-747-8).
- For alternate airports, the process the operator used to evaluate the airport to ensure it could accommodate the aircraft.

1) It is the air carrier's responsibility to confirm that they can comply with the requirements of OpSpec C091 and to supply the POI sufficient documentation to verify their compliance. The air carrier is responsible for any necessary coordination and letters of understanding with applicable air traffic control (ATC) facilities and/or airport operators to meet the requirements of OpSpec C091 (e.g., taxi routes to be used and procedures to follow applicable to the specific certificate holder).

2) Flightcrew and dispatch training and qualification program.

3) The POI should provide the air carrier, ATC facility, or airport operator support, as necessary, to comply with the requirements of OpSpec C091. PIs may find a list of airports with MoS, for the A-380 and B-747-8 at http://www.faa.gov/airports/engineering/nla_mos/.

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NOTE: The air carrier's compliance with the requirements of OpSpec C091 eliminates the air carrier from having to demonstrate its capability to operate to the lower criteria specified in OpSpec C091 prior to being issued OpSpec C091 for that aircraft and airport combination.

D. ADG-VI/ICAO Group F Aircraft. ADG-VI/Group F specifies that the required runway width be at least 200 feet (60 meters) while ADG-V/Group E specifies that the runway width be at least 150 feet (45 meters). Currently, the A-380 and the B-747-8 are the only commercial aircraft in regular airline service that fit into the ADG-VI/ICAO Group F criteria and are therefore subject to the C091 requirements to takeoff and land on ADG-V/ICAO Group E runways.

E. B-747-8 Limitations. The following limitations apply to B-747-8 operations:

1) Runways for takeoffs and landings shall be at least 150 feet (45 meters) wide;

2) Operators must comply with all limitations and procedures specified in the applicable B-747-8 Airplane Flight Manual (AFM) for lightweight and aft center of gravity (CG) takeoffs.

NOTE: In accordance with FAA Airports Engineering Brief #74A, Use of 150-Foot (45-M) Wide Runways and Blast Pads for Boeing 747-8 Operations, the 35-foot standard stabilized runway shoulder width for ADG-V does not need to increase to the ADG-VI standard of 40 feet.

F. A-380 Limitations. The following limitations apply to A-380 operations:

1) The overall runway plus shoulder width is of 280 feet (85 meters) for ADG-VI and 250 feet (75 meters) for ICAO Group F. In order to reduce the jet blast impact to 150 feet (45 meters) runway surface, the FAA recommends stabilized shoulders beyond the runway edge. The FAA 150 foot runway width evaluation for the A-380, along with the recommendations for these operations contained in ICAO Annex 14, Aerodromes, and A-380 AFM have led to the following runway width authorization for A-380 operation in the United States:

2) Runways for takeoffs and landings shall be at least 150 feet (45 meters) wide with stabilized runway shoulders on both sides of the runway extending an additional 50 feet (15 meters) outward from the runway edge.

3) Runways as narrow as 150 feet (45 meters) wide without stabilized shoulders may be used for takeoff and landings, provided applicable flight manual procedures for takeoffs on 150 foot wide runways without stabilized runway shoulders are followed and procedures are implemented for the full length of the runway to be inspected for foreign object damage (FOD) after the takeoff prior to successive aircraft operations.

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NOTE: Only the airport operator conducts runway inspections for FOD. Hence, the air carrier should make sure, or have some documentation, that the airport operator will do it. The document is the Federally required Airport Certification Manual under 14 CFR part 139.

4) The hold short lines or hold position must be expanded outward from the 280 foot point by 1 foot for every 100 feet the runway threshold elevation is above sea level. (For example, a threshold elevation of 5,000 feet mean sea level (MSL) requires an additional 50 feet. Thus, the hold short lines or hold position can be no closer than 330 feet (280 feet + 50 feet) from the runway centerline (RCL).

NOTE: This is to address the hold position of aircraft when an A-380 is on final approach and is as required per the current edition of AC 150/5300-13. Specifically, so that if the A-380 has to go-around (balked landing) then the lateral area on both sides of the runway is clear of obstacles so that if the A-380 deviates left or right during the go-around maneuver (balked landing) its wing tips will not strike anything.

OPSPEC C300—14 CFR PART 97 NDB, NDB/DME, VOR, AND VOR/DME INSTRUMENT APPROACH PROCEDURES USING SUBSTITUTE MEANS OF NAVIGATION.

A. C300 Nonstandard Authorization. The nonstandard template OpSpec C300 authorizes qualified operators to substitute specific Area Navigation (RNAV) equipment for non-directional radio beacon (NDB), NDB/distance measuring equipment (DME), very high frequency omni-directional range station (VOR), and VOR/DME instrument approaches.

1) The OpSpec/MSpec/LOA C300 authorization covered by this subparagraph applies to operators conducting operations under 14 CFR parts 121 and 135. The airplane's make/model/series, the manufacturer and model, and the software part/version of the RNAV navigation systems authorized for this type of navigation must be listed in Table 1 along with any limitations and provisions. (See sample table in Figure 3-66F, Sample Table 1—Aircraft and Navigation Systems Eligible for Instrument Approach Procedures Using Substitute Means of Navigation.)

Figure 3-66F. Sample Table 1—Aircraft and Navigation Systems Eligible for Instrument Approach Procedures Using Substitute Means of Navigation

Aircraft M/M/S	RNAV System(s) and Software			Limitations and Provisions
	Manufacturer	Model	Software Part/Version	
B-717-200	Honeywell	Pegasus	PS4081642-909	NDB, NDB/DME IAP N/A

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2) Before a principal operations inspector (POI) can issue a nonstandard OpSpec/MSpec/LOA C300, the Flight Technologies and Procedures Division (AFS-400) and the Air Transportation Division (AFS-200) must concur with the POI's recommendation to issue the OpSpec/MSpec/LOA.

3) The POI must use the request process as illustrated in Figure 3-66G, Instrument Approach Procedures Using Substitute Means of Navigation Application Flowchart, when the operator submits an application package.

a) The POI submits the application package to the regional NextGen program branch manager.

b) The regional NextGen program branch manager forwards the application to AFS-400 for review.

c) AFS-400 will review the application in consultation with AFS-200 and forward a written concurrence to the regional NextGen program branch manager.

d) The regional NextGen program branch manager will forward the written concurrence to the POI.

e) The POI will issue OpSpec/MSpec/LOA C300 to the operator.

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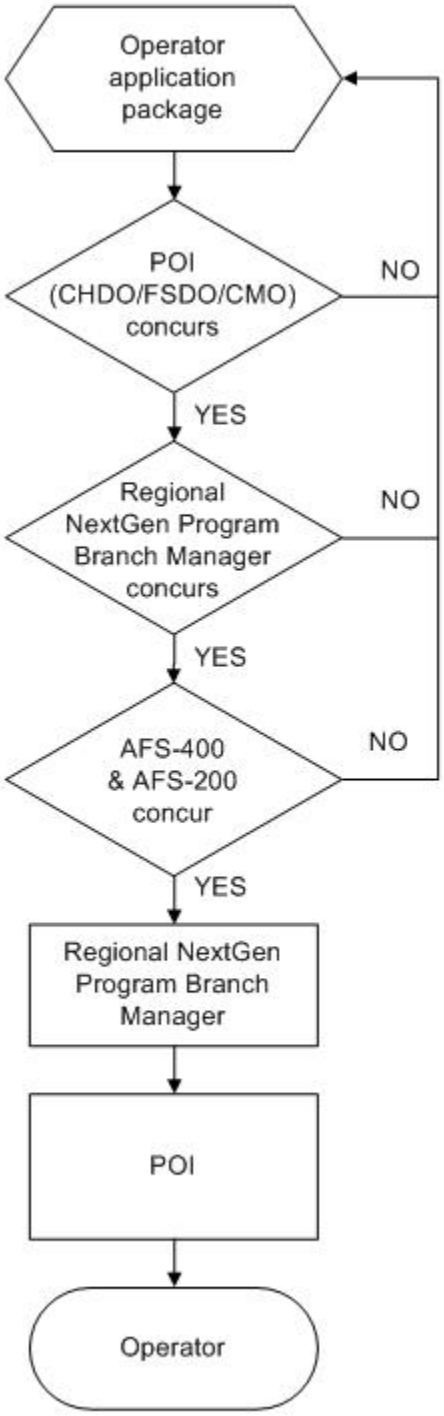
Figure 3-66G. Instrument Approach Procedures Using Substitute Means of Navigation Application Flowchart



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B. Aircraft Qualification. Use the guidelines in OpSpec C300 for aircraft qualification.

C. Operating Considerations. This authorization to conduct NDB, NDB/DME, VOR, and VOR/DME instrument approach procedures (IAP) using substitute means of navigation applies when the underlying Navigational Aid (NAVAID) (NDB, VOR, or DME) is out of service, and/or compatible aircraft avionics are either not installed (automatic direction finder (ADF) or DME) or not operational (VOR, ADF, or DME).

1) Navigation Data and Flyability Validation. The operator must establish a process to ensure that each IAP intended to be flown under this authority has been checked to confirm flyability with aircraft RNAV systems. The structure of this process is left to the operator's discretion as long as compliance with OpSpec C300 is met. The operator's process must also ensure that any lateral path changes that occur during the 28-day update cycle are examined to confirm the flyability of procedures and that the flyability and validation are documented.

2) Dispatching to Airports with Out-of-Service NAVAIDs. Operators planning to dispatch to an airport with an out-of-service NAVAID may need to coordinate with air traffic control (ATC). In order to receive a clearance for certain procedures, this coordination should include, but is not limited to, the operators' intent to use their RNAV system as a substitute means of navigation guidance and their capability and operational authorization.

D. Training. The flightcrew must complete the operator's approved training program, to include training specific to the RNAV manufacturer/model/software and software version, and IAPs using substitute means of navigation. Guidance in OpSpec C300 must be addressed in the training program.

OPSPEC/MSPEC/LOA C358—SPECIAL RESTRICTIONS FOR FOREIGN RNAV TERMINAL INSTRUMENT PROCEDURES WITH RNP LINES OF MINIMUMS.

NOTE: To obtain the nonstandard authorization C358, the operator must use the nonstandard request process. See Volume 3, Chapter 18, Section 2, paragraphs 3-712 to 3-713, for the nonstandard request process. For operators conducting operations under 14 CFR part 121 or 135, the formal request must be requested through the Air Transportation Division (AFS-200). For operators conducting operations under 14 CFR part 125, including part 125 Letter of Deviation Authority (LODA) holders, or under 14 CFR part 91 subpart K (part 91K), the same nonstandard request process must be used and submitted through the General Aviation Division (AFS-800). The airplane qualification package should be sent simultaneously to the Flight Technologies and Procedures Division (AFS-400) for evaluation. AFS-400 will coordinate with the appropriate policy division for final approval of this nonstandard authorization for all operator requests.

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A. Nonstandard Authorization. The nonstandard template C358 authorizes a qualified operator to conduct certain "RNP-like" foreign Area Navigation (RNAV) Terminal Instrument Procedures (TERPS) with required navigation procedures (RNP) lines of minimums. These "RNP-like" foreign RNAV approaches are not designed to the same criteria as U.S. 14 CFR part 97 RNAV RNP special aircraft and aircrew required (SAAAR) procedures. Only the selectable procedures in Table 1 of the C358 template may be authorized. The International Civil Aviation Organization (ICAO) uses the term Authorization Required (AR) rather than SAAAR. AR may appear on "RNP-like" foreign RNAV procedures with RNP lines of minimums regardless of the design criteria.

NOTE: "RNP-like" foreign RNAV procedures with RNP minimums that meet part 97 RNAV RNP SAAAR procedure design criteria are not available for selection in the C358 template, Table 1, and require authorization via the authorization of template C384.

1) C358 authorization is granted through the nonstandard authorization request process (see Volume 3, Chapter 18, Section 2).

2) C358 authorization is applicable to operators conducting operations under 14 CFR parts 91, 91K, 121, 125 (including those with a LODA 125M), and 135.

3) Procedures with RNP lines of minimums. These "RNP-like" foreign RNAV procedures have RNP lines of minimums of 0.3 or less, and/or a radius to a fix (RF) leg required, and/or the missed approach requiring an RNP less than 1.0. RNP less than 0.3 specified in the line of minimums (RNP line of minimums refers to the minimum altitude for the approach and has an RNP requirement associated with it; e.g., there may be minimums of 250 feet for RNP 0.11 and a separate line of minimum of 350 feet for RNP 0.20).

4) U.S. RNAV RNP SAAAR procedures are authorized (nonstandard template C384) using the guidance in Advisory Circular (AC) 90-101, Approval Guidance for RNP Procedures with SAAAR, current edition. The foreign "RNP-like" RNAV procedures in Table 1 are authorized using the portions of AC 90-101 that apply to the particular RNP procedure design criteria for each approach.

Figure 3-66A. Sample Table 1—Special Restrictions for "RNP-like" Foreign RNAV Terminal Instrument Procedures with RNP Lines of Minimums

(Only those procedures allowed for authorization will be available as selectables in the C358 template.)

Airport	Procedure Identification	Procedure Requirements
QUITO, Ecuador (SEQU-UIO) / RNAV (RNP) Rwy 17 / VNAV path required, RF leg required, RNP 0.15, Missed approach RNP < 1.0		
QUITO, Ecuador (SEQU-UIO) / RNAV (RNP) Rwy 35 / VNAV path required, RF leg required, RNP 0.15, Missed approach RNP < 1.0		

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B. Airplane Qualification. The airplane qualification must meet the guidelines established in AC 90-101, appendix 2, with the following exceptions:

1) Principal operations inspectors (POI) should send the formal nonstandard request to the appropriate headquarters (HQ) division stating that the airplane qualification and operating procedures have been sent to the Flight Technologies and Procedures Division (AFS-400) for evaluation. POIs should simultaneously submit the airplane qualification and operating procedures package to AFS-400, as described in the AC 90-101, appendix 7 checklist.

2) The vertical accuracy requirement as written in AC 90-101, appendix 2, paragraph 2c is not required for this authorization. Vertical guidance in these foreign "RNP-like" procedure(s) is based on barometric vertical navigation (baro-VNAV). Eligible aircraft are those with an Aircraft Flight Manual (AFM) or Aircraft Flight Manual Supplement (AFMS) that explicitly states that the vertical navigation (VNAV) system is approved for approach operations in accordance with the current edition of AC 20-129, Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S. National Airspace System and Alaska, or those with written documentation (e.g., Flight Standardization Board (FSB) report or other official documentation) verifying eligibility.

3) Airspace Containment (AC 90-101, appendix 2, paragraph 2d). The airspace containment requirement as written in AC 90-101 is not required for this authorization. Airplanes that are qualified to conduct RNAV operations in accordance with applicable directives and which have the proper RNAV capability (e.g., Global Positioning System (GPS), RF leg capability) for the procedure(s) listed may be authorized.

C. Operating Considerations. The operator must establish operating procedures that meet the applicable guidelines of AC 90-101, appendix 4. Operating procedures must incorporate all operational mitigations based on equipment authorization. For example, if RF leg is authorized, an operational mitigation is required if the equipment engages in "track hold" mode when a go-around is selected. (Track hold would not follow the lateral navigation (LNAV) path when a go-around is initiated in or shortly after an RF leg.) Submit the operating procedures package to AFS-400 as described in the AC 90-101 checklist in appendix 7. The operating procedures must meet the guidelines established in AC 90-101, appendix 4, with the following exceptions.

1) Vertical track deviation monitoring limit of 75 feet (AC 90-101, appendix 4, paragraph 3g.). The track deviation monitoring limit of 75 feet vertically, as written in AC 90-101, is not required for this authorization. Eligible airplanes, in accordance with baro-VNAV requirements, must be equipped with and operationally using either a flight director (FD) or autopilot capable of following the Vertical Path (VPATH).

2) Verification of the most current airport altimeter is set prior to the final approach fix (FAF) but no earlier than the initial approach fix (IAF) (AC 90-101, appendix 4, paragraph 3k). The altimeter setting requirement as written in AC 90-101 is not required for this authorization. Although the listed procedure(s) require(s) the current altimeter setting for the airport of intended landing, the flightcrew is not required to verify the setting between the IAF and the FAF. Normal flight deck procedures must meet this requirement.

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D. Training. The flightcrew must complete the operator's approved RNP instrument approach procedure (IAP) training program for these procedures and qualify for RNP instrument approach operations by one of the operator's check airmen/check pilot, as applicable, or by an FAA inspector. The guidance of AC 90-101, appendix 5, must be addressed in the training program.

1) For operators authorized RNP SAAAR instrument approaches for the aircraft equipment listed in Table 2 of the C358 authorization, only the specific differences from RNP SAAAR procedures that apply to the "RNP-like" foreign RNAV instrument procedures listed in Table 1 of the C358 authorization, must be trained.

2) Flightcrew members of operators that are not authorized for RNP SAAAR for the aircraft equipment listed in Table 2 of the C358 authorization, the applicable subjects of AC 90-101, appendix 5 must be trained:

a) Guidance of AC 90-101, appendix 5, must be followed except where a task analysis has shown that the crew knowledge and skills for RNP SAAAR do not apply to the "RNP-like" foreign RNAV instrument procedure(s) authorized in Table 1.

b) Unique RNP approach criteria that apply to the "RNP-like" foreign RNAV instrument procedure(s) authorized in Table 1.

E. Listing Airplanes and Navigation Systems Approved for "RNP-Like" Foreign RNAV TERPS. The airplane(s) and navigation systems approved for "RNP-like" foreign RNAV TERPS with RNP lines of minimums must be listed in Table 2 of the C358 authorization as follows:

1) The approved navigation systems and the specific software version must be listed.

2) The table must identify the authorized use of a coupled autopilot or an FD which is provided as a selectable in the automated Operations Safety System (OPSS) in processing the authorization.

3) The lowest RNP authorized must be listed.

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Figure 3-66B. Sample Table 2—Airplanes and Navigation Systems Eligible for "RNP-like" Foreign RNAV Terminal Instrument Procedures with RNP Lines of Minimums

Airplane M/M/S	Navigation System M/M/Software/ Version	Limitations and Restrictions	Autopilot Coupled or Flight Director Required	Lowest RNP
B-737-490	Smiths FMCS/FMC 2907A4 or 2907C1 with U10.5A.	Not authorized to exceed temperature limits of the approach. Not authorized RNP parallel approach operations (RPA). Not authorized RNP parallel approach runway transitions (RPAT).	Either FD or Autopilot only	RNP-0.15 RNP-0.11

F. Execution of an "RNP-Like" Foreign RNAV Instrument Procedure. Execution of an "RNP-like" foreign RNAV instrument procedure requires the current, local altimeter setting for the airport of intended landing. Remote altimeter settings are not allowed.

G. VNAV Path Requirements. An airplane(s) with an airworthiness approval for baro-VNAV approach operations in accordance with AC 20-129 must be equipped with and operationally use either an FD or autopilot capable of following the VPATH.

H. Approval Requirements. Unlike RNP SAAAR C384 authorization, there is no interim approval required for this nonstandard authorization in C358. The operator must submit the following information on a continuous basis every 30 days to the POI for his or her evaluation of the continuing use of the authorization (AC 90-101, appendix 6, paragraph 1):

1) Total number of the "RNP-like" foreign RNAV approach procedures conducted;

2) Number of satisfactory approaches by aircraft/system (satisfactory if completed as planned without any navigation or guidance system anomalies); and

3) Unsatisfactory approaches must be included in the report and must include, but are not limited to, the following:

a) UNABLE REQ NAV PERF, NAV ACCUR DOWNGRAD, or other RNP messages during any approach;

b) Excessive lateral or vertical deviation;

c) Terrain Awareness and Warning Systems (TAWS) warning;

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d) Autopilot system disconnect;

e) Navigation data errors; and

f) Pilot report of any anomaly.

OPSPEC/MSPEC C359. DECOMMISSIONED.

LOA C381—SPECIAL INSTRUMENT PROCEDURES, REGIONAL AUTHORIZATION.

A. Applicability. Letter of authorization (LOA) C381 allows Flight Standards District Office (FSDO) inspectors and the regional Flight Standards division (RFSD) Regional NextGen Branch (RNGB) to authorize multiple Title 14 of the Code of Federal Regulations (14 CFR) part 91 pilots and operators to use special non-14 CFR part 97 instrument procedures. RNGBs are not required to use LOA C381. The appropriate geographical RNGB will determine which procedures are applicable for LOA C381. LOA C381 should only be used to maintain a list of multiple users (with written authorizations as described below) of special instrument procedures that do not require specific aircraft equipment, performance, pilot training, or any other complex requirements. All other special terminal instrument procedures must be authorized using LOA C081. The RNGB must contact the Technical Programs Branch (AFS-260) to create an operator in WebOPSS and for RNGB digital signature authority. For LOA C381 applicable to 14 CFR part 129 foreign air carriers, see Volume 12, Chapter 2, Section 5.

NOTE: Currently there is no method to authorize a nonpart 129 foreign pilot/operator to fly special instrument procedures or Area Navigation (RNAV) Visual Flight Procedures (RVFP) due to tracking, notification, and coordination requirements.

B. Background. Section 91.175(a) states, “Instrument approaches to civil airports. Unless otherwise authorized by the FAA, when it is necessary to use an instrument approach to a civil airport, each person operating an aircraft must use a standard instrument approach procedure prescribed in part 97 of this chapter for that airport. This paragraph does not apply to United States military aircraft.”

1) A special terminal instrument procedure (approach or departure) serving a private use airport or heliport is not promulgated under part 97, and therefore requires Federal Aviation Administration (FAA) authorization to conduct these procedures in instrument conditions in accordance with § 91.175(a). OpSpec/management specification (MSpec)/LOA C081 normally authorizes special procedures under 14 CFR parts 91, 91K, 121, 125, and 135. OpSpec H122 authorizes 14 CFR parts 91, 91K, 121/135, and 135 helicopter operators. To ensure that all individual users are authorized correctly for these procedures, all pilots/operators need to be authorized via LOAs to support pilot notification when a procedure is amended or canceled. All part 91 users can be authorized via LOA C081 by their appropriate geographic FSDO, but this can create a greatly increased workload requiring a large number of FAA resources and man hours at air parks with dozens to hundreds of users.

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2) LOA C381 was designed specifically to simplify the authorization process while still authorizing all individual users correctly, to address multiple part 91 operators flying one or more procedures. The RNGB authorizes LOA C381 in Web-based Operations Safety System (WebOPSS), and the last page of the LOA is the signature page for the pilot and the FAA inspector, either a FSDO principal operations inspector (POI) or RNGB All Weather Operations (AWO).

NOTE: While LOA C381 allows an RNGB inspector or FSDO inspector to sign FAA Form 8260-7B and LOA C381 signature page, this is primarily for the sake of flexibility. The geographic FSDO has the primary responsibility to authorize pilots via these signature pages, particularly at air parks which may be a substantial distance from the regional FSDO. The RNGB and the geographic FSDO should work together, particularly during site visits where multiple pilots are anticipated for authorization, but LOA C381 must also be flexible enough to allow either an RNGB inspector or a FSDO inspector to authorize a pilot without inspectors from both offices being present. With the concurrence of the geographic FSDO, an RNGB inspector may authorize users if necessary due to scheduling or staffing issues (e.g., if a FSDO inspector cannot be present). In these instances, the RNGB will ensure that the FSDO receives the required paperwork for their records.

3) LOA C381 (including the signature page) and appropriate 8260 series forms (see subparagraph 5) below) serve as the pilot/operator authorization. One or more approaches in the region can be added to Table 1, and each authorized user for each approach can be added to Table 2 and authorized for individual (or multiple) procedures by referencing Table 1. Although a complete LOA C381 is required for the RNGB and the appropriate FSDO to ensure proper pilot authorizations, the LOA issued to the pilot must only contain, at a minimum, the approach authorized in Table 1, the pilot's name and information in Table 2, and the completed signature page. It is not necessary to send a new copy of LOA C381 with a complete list of all approaches and all pilots to every authorized pilot for every LOA C381 revision. An individual pilot needs to be reissued LOA C381 only when there is a change to a procedure that pilot is authorized to fly, or there is a change in that pilot's authorization.

4) There are several special terminal instrument procedures serving private-use, multiple user, general aviation airports (such as air parks) throughout the United States. Many of these procedures have been around for more than 10 years. Previously, FAA Form 8260-7 defined the procedure and was signed off by the Flight Technologies and Procedures Division (AFS-400) to authorize the procedure. FAA Form 8260-7 has since been updated to FAA Form 8260-7A (which defines the procedure) and FAA Form 8260-7B (which defines any additional operator requirements). Several procedures are still defined by an approved FAA Form 8260-7, and will remain this way until the procedure is amended or canceled.

5) To authorize a user via LOA C381, the pilot completes and signs the bottom half of the last page of the LOA C381 and FAA Form 8260-7B, page 2. An FAA inspector, either an AWO or a FSDO inspector, signs the top half and FAA Form 8260-7B, page 2. The FSDO keeps the signed originals, and gives a copy to the pilot and to the RNGB. The pilot copy is their proof of authorization. The RNGB adds the pilot to Table 2 of LOA C381 and reauthorizes LOA C381

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in WebOPSS. The RNGB is responsible for updating and authorizing the LOA C381 in WebOPSS, including adding pilots and procedures to the tables. The LOA C381 issued to the pilot/operator must contain at least the authorized procedure(s) in Table 1, the authorized pilot with applicable information in Table 2, and the signed original signature page. It is not necessary for all procedures in the region to be listed in Table 1, or all pilots authorized to be listed in Table 2, but the applicable procedure(s) and pilot are required.

6) It is important to note that LOA C381 in WebOPSS only serves as blanket authorization and a tracking method, and is signed in WebOPSS by the RNGB AWO. LOA C381 does not have to be reissued to each listed pilot each time a change is made, but it does need to be reauthorized when one or more pilots is added, removed, or amended in the LOA. The only time a pilot needs to be reauthorized is when that pilot is authorized for a new procedure, or when an authorized procedure is amended.

C. Authorization Forms and Records.

1) As it applies to a pilot/operator, the following signed forms serve as their authorization:

a) Series 8260 Forms: FAA Form 8260-7A (FAA Form 8260-7 for older procedures) containing the specifications of the IAP, FAA Form 8260-7B for issuing the instrument procedure, and FAA Form 8260-15A (FAA Form 8260-15B for graphic Obstacle Departure Procedure (ODP) or Standard Instrument Departure (SID)).

b) LOA C381, signed by both the pilot and an FAA inspector, and including the authorized procedure(s) in Table 1 and the authorized pilot in Table 2.

2) The appropriate geographic FSDO relevant to the pilot maintains signed original of the forms listed in subparagraph 1) above, and sends a copy to the appropriate geographic RNGB relevant to the location of the procedure.

3) The appropriate geographic RNGB relevant to the location of the procedure maintains a copy of the signed forms listed in subparagraph 1) above.

D. Authorization Responsibilities. Due to multiple operators using these special instrument procedures, the following measures outlined below are required to ensure regulatory compliance and limit potential risk.

1) For each procedure, the Airport Manager or their designee shall:

a) Maintain a list of pilots authorized for each procedure, including contact information.

b) For a new procedure or a procedure amendment, where it may be beneficial, arrange a meeting or site visit for the appropriate geographical FSDO and RNGB to authorize multiple users, and notify all pilots seeking authorization.

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c) Notify all pilots/operators requesting to fly any special terminal instrument procedure that they must contact either their appropriate geographical FSDO or RNGB in the region responsible for the procedure for authorization.

d) Using FAA Form 8260-7A (or FAA Form 8260-7 for older procedures) and FAA Form 8260-15A/B, have an aeronautical chart produced suitable for cockpit use.

e) Distribute the appropriate special terminal instrument procedure charts only to pilots/operators that are properly authorized by Flight Standards (AFS). This authorization is verified by presenting the signed FAA Form 8260-7B and the signed LOA C381.

2) The RNGB shall:

a) Establish an Executive Operator in WebOpss to authorize LOA C381, which will contain the list of all pilots/operators authorized to conduct the listed procedures.

b) Verify and enter all pilot/operator information in WcbOPSS, and issue LOA C381 to reflect the procedures as listed in Table 1 of the LOA. See Figure 3-67K for an example.

Figure 3-67K. Sample Table 1 – Airports and Special Terminal Instrument Procedures

Ref. No.	Airport Identifier (ICAO)	Special Terminal Instrument Procedures
1	82IS; Landings Condominium Huntley; IL	VOR-A, AMDT 6 Takeoff Minimums and Obstacle Departure Procedure, ORIG
2	LL22; Brookeridge Air Park; Downers Grove, IL	VOR/DME or GPS-A, AMDT 1

c) Prepare a pilot briefing sheet for each special terminal instrument procedure.

d) Forward a copy of the pilot briefing sheet, FAA Forms 8260-7/8260-7A/ 8260-7B/8260-15A/15B, and any other required documentation to the POI for each procedure.

e) With the concurrence of the geographic FSDO in accordance with paragraph 3-714B2), the RNGB will authorize users via the process outlined in subparagraph 3) below, if necessary, due to scheduling or staffing issues (e.g., if a FSDO inspector cannot be present). In these instances, the RNGB will ensure that the FSDO receives the required paperwork for their records.

f) Save either a hard copy or an electronic copy of each signed pilot authorization and signed FAA Form 8260-7B.

3) The FSDO inspector shall:

a) Verify the pilot’s identity and credentials (pilot certificate/instrument rating/aviation medical).

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b) Review FAA Form 8260-7B for required signatures and any associated documents to ensure accuracy.

c) Emphasize to pilots/operators that the special terminal instrument procedures conform to current requirements and that only authorized pilots/operators are permitted to utilize these procedures.

d) Ensure the pilot/operator understands that no additional training is required to conduct these procedures. If additional training is required, that procedure must be authorized via individual OpSpec/MSpec/LOA in accordance with current 8900.1 guidance.

e) Sign an original and make at least two copies of the signed LOA C381 and signed FAA Form 8260-7B and distribute as follows:

1. Original – FSDO.

2. Copy – Pilot/Operator.

3. Copy – RNGB.

NOTE: The pilot/operator is required to have a copy of the applicable FAA Form 8260-7B in order to have an approach chart and ODP issued for their use.

f) Notify the RNGB of any change in assigned POI.

g) Ensure the pilot/operator understands the original issued IAP charts are authorized for their use only. Photocopying this IAP chart is not authorized.

4) The pilot/operator shall:

a) Maintain current point of contact (POC) information with the appropriate Airport Manager.

b) Prior to being issued LOA C381 and FAA Form 8260-7B, present the following documents to the FAA in person:

1. FAA pilot certificate,

2. FAA medical certificate, and

3. U.S. passport or other government issued photo identification.

c) Ensure their signature is on FAA Form 8260-7B.

d) Present the signed FAA Form 8260-7B to the appropriate airport manager in order to obtain special terminal instrument procedure chart(s).

e) Sign the LOA and confirm FSDO and RNGB signatures.

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f) Have LOA in physical possession, or readily accessible, when exercising the privileges of the LOA.

NOTE: Each owner/operator/pilot in command (PIC) is responsible for currency and proficiency of instrument flight rules (IFR) and an airworthy aircraft.

g) Return the LOA and the issued special charts when the LOA is no longer required.

OPSPEC/MSPEC/LOA C384—REQUIRED NAVIGATION PERFORMANCE PROCEDURES WITH AUTHORIZATION REQUIRED.

A. OpSpec/MSpec/LOA C384 Nonstandard Authorization. The nonstandard template C384 authorizes qualified operators to conduct 14 CFR part 97 Area Navigation (RNAV) Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). This template also authorizes foreign RNP IAPs with AR.

1) OpSpec/MSpec/LOA C384 authorization covered by this paragraph applies to operators conducting operations under 14 CFR parts 91 (including part 91 subpart K (part 91K)), 121, 121/135, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135.

2) Complete operational approval guidance material for RNP IAPs with AR is found in the current edition of Advisory Circular (AC) 90-101, Approval Guidance for RNP Procedures with AR. The AC also includes application preparation and processing guidance.

3) Before a principal operations inspector (POI) may issue nonstandard OpSpec/MSpec/LOA C384, the Flight Technologies and Procedures Division (AFS-400) and either the Air Transportation Division (AFS-200) or the General Aviation and Commercial Division (AFS-800), as appropriate, must concur with the POI's recommendation to issue the OpSpec/MSpec/LOA.

4) Figure 3-67E, RNP AR Application Flowchart, illustrates the preferred flow for reviewing RNP AR applications within the FAA. Volume 3, Chapter 1, Section 1 describes the recommended general process to be used by Flight Standards Service (AFS) inspectors in the course of evaluating an operator's request for operational approval. Nothing in this C384-specific guidance is intended to contradict the recommended general process.

a) The POI would typically be the first FAA official to receive and review the application. The POI would provide feedback to the operator, as needed, to produce an application that meets the requirements of AC 90-101. The POI would then submit his or her recommendation for approval to the regional Next Generation (NextGen) Branch (e.g., AEA-220).

NOTE: Volume 3, Chapter 1, Section 1 instructs the inspector to upload an electronic version of the RNP AR application to the NextGen application tracking SharePoint site associated with his or her region. The inspector should notify the regional All Weather Operations (AWO) specialist (within the NextGen Branch)

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and the Performance Based Flight System Branch (AFS-470) when the application has been uploaded. This will allow the AWO specialist and AFS-470 personnel to concurrently review the application and save time in the overall process. The POI, AWO specialist, and AFS-470 representatives should collaborate on the application review and thereby avoid duplication of effort in resolving any issues with the application.

b) The AWO specialist will review the application and, if necessary, seek additional information or clarification from the operator through the POI. Upon completion of the AWO specialist's review, the regional NextGen Branch manager should forward his or her recommendation, and that of the POI, to AFS-400.

c) AFS-400 will review the application in consultation with AFS-200 or AFS-800, as appropriate. Upon completion of this review, the coordinating offices will jointly provide written concurrence with the POI and AWO specialist recommendations to approve the application. The headquarters (HQ) concurrence memo will be sent to the POI through the regional NextGen Branch manager.

NOTE: If AFS-200, AFS-400, or AFS-800 does not concur with the recommendations to approve the application, they will provide a memo stating the reasons for this position.

d) The POI will issue the OpSpec/MSpec/LOA C384 to the operator in accordance with the limitations and/or provisions stipulated in the HQ concurrence memo. The HQ memo will, at a minimum, stipulate the specific aircraft make, model, and series (M/M/S), the lowest RNP value authorized, the related flight management system (FMS) software version, and whether the operator is authorized to fly Radius to Fix (RF) legs and/or approaches requiring less than RNP 1.0 nautical mile (NM) on the Missed Approach Segment (MAS) (i.e., "additional aircraft capabilities").

5) A listing of foreign RNP AR procedures approved for U.S. operators is maintained on the AFS-470 website. In addition, each approved foreign RNP AR procedure is added to the C384 template as a selectable item in Table 2. Operators may have any of those approved foreign procedures added to OpSpec/MSpec/LOA C384, Table 2 at the time C384 is issued, or at a later date, by requesting such action of their POI. No additional application process, or HQ approval, is required. The AFS-470 website also includes any limitations or restrictions associated with the foreign RNP AR procedures. Should the inspector have any questions regarding the suitability of an operator for any foreign RNP AR approach procedure, he or she should contact AFS-470.

NOTE: The AFS-470 website may be found at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/rnp.

6) If an operator wants a new (i.e., not currently approved) foreign RNP AR approach to be added to the approved list, they must send a separate application package to the POI. That application package must include a letter of request, the applicable state's

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Aeronautical Information Publication (AIP) (in English), and the applicable procedure charts. The POI should forward the package, along with his or her recommendations, to AFS-400 via the regional NextGen Branch. AFS-400 will evaluate the foreign RNP AR procedure and determine whether it is suitable for U.S. operators' use.

NOTE: The response to this specific request will likely be provided via separate means following completion of the procedure review process described in Figure 3-67E and, if approved, would result in the foreign RNP AR procedure being added to the C384 template and the foreign procedures list on the AFS-470 website.

B. OpSpec/MSpec/LOA C384 Tables 1 and 2. The POI should complete Table 1 and, if applicable, Table 2 of OpSpec/MSpec/LOA C384 in accordance with the following guidelines.

1) Table 1 should reflect the complete M/M/S of the aircraft qualified for RNP AR operations, as provided in the HQ concurrence memo. Table 1 should also fully identify the navigation system (FMS) make and model, as well as software version(s). The HQ memo will also stipulate this information.

2) Table 1 should list any limitations specifically addressed in the HQ memo, as well as any limitations identified by the POI. Table 1 should indicate the lowest permissible RNP value for both flight director (FD)-only and autopilot operations, as provided in the HQ concurrence memo. The inspector should also select, in Table 1, those additional aircraft capabilities specifically identified in the HQ memo. See Figure 3-66C, Sample C384 Table 1—Aircraft and Navigation Systems Eligible for RNP Procedures with AR, for a sample OpSpec/MSpec/LOA C384, Table 1.

NOTE: The POI must ordinarily obtain HQ concurrence before making changes to the contents of Table 1, unless specifically authorized in the HQ RNP AR concurrence memo. For example, the inspector would need HQ concurrence prior to adding aircraft or amending the FMS software version unless the associated manufacturer documentation indicates the change/revision has no effect on RNP AR operations. Alternatively, the inspector would not need HQ concurrence prior to amending the "lowest RNP" value if the HQ concurrence memo authorized a lower RNP value at the end of a specified period or upon the operator's completion of a number of RNP AR approaches.

3) Table 2 is used to name the specific foreign RNP AR approaches and any associated limitations for which the individual operator is authorized to fly. All foreign RNP AR procedures approved for U.S. operators will be available for selection within the C384 template. The operator should identify for the POI which foreign RNP AR procedures they want listed in Table 2 of their C384. See Figure 3-66D, Sample C384 Table 2—Foreign Approaches Authorized for RNP AR Operations, for a sample OpSpec/MSpec/LOA C384, Table 2.

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Figure 3-66C. Sample C384 Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures with AR

Aircraft M/M/S	Navigation System M/M/Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities
B-737-700/800	GE Aerospace FMC (2), p/n 171497-05-01, U 10.8A	None	With flight director: RNP .15 With autopilot: RNP .11	1) RF legs. 2) Missed approach requiring less than RNP 1.0.

Figure 3-66D. Sample C384 Table 2 – Foreign Approaches Authorized for RNP AR Operations

Approach Name/Identifier	Special Limitations
Tegucigalpa, Honduras (MHTG) RNAV RNP 02	Flightcrews must coordinate missed approach holding instructions with ATC prior to commencing the approach.

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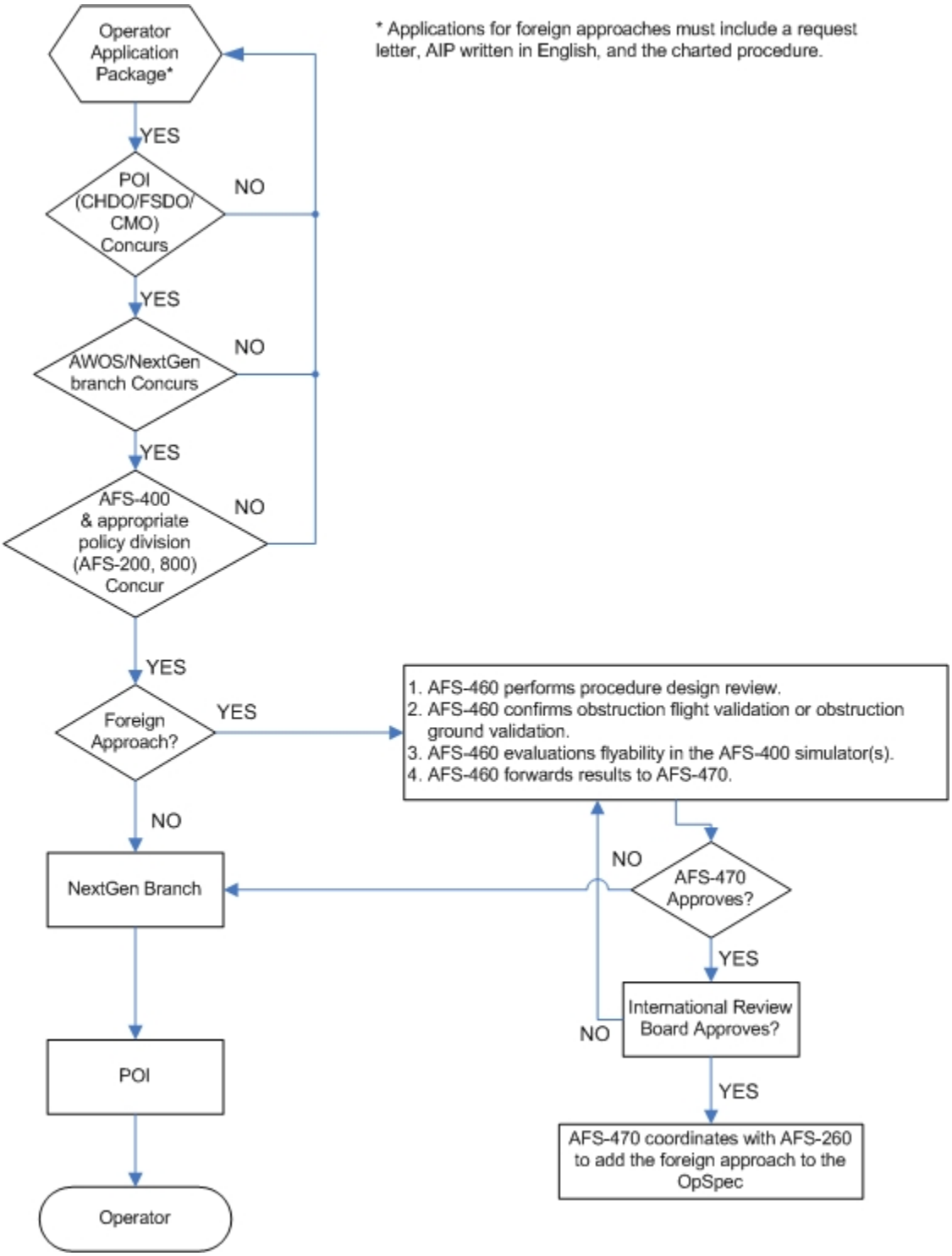
Figure 3-67E. RNP AR Application Flowchart



RESERVED. Paragraphs 3-872 through 3-920.

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CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 11 Parts A and B Operations Specifications for Part 147 Aviation Maintenance Technician Schools

3-1061 DISCUSSION. This section discusses each standard template available for issuance by the Web-based Operations Safety System (WebOPSS) for Title 14 of the Code of Federal Regulations (14 CFR) part 147 Aviation Maintenance Technician Schools (AMTS). These templates are more commonly referred to as paragraphs.

> NOTE: All 300-series (300–399) operations specifications (OpSpec)/management specifications (MSpec)/training specifications (TSpec)/letters of authorization (LOA) (Parts A, B, C, D, E, and H) require approval by the appropriate headquarters (HQ) policy division. Part 147 AMTSs and all airworthiness nonstandard requests must be approved by the Aircraft Maintenance Division (AFS-300). Any additional provisions and/or authority added to an OpSpec/MSpec/TSpec paragraph or LOA through the use of nonstandard text entered in the nonstandard text block (sometimes referred to as "Text 99") must also be approved by the appropriate HQ policy division. For detailed guidance on the process for obtaining HQ approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

OPSPEC A001—ISSUANCE AND APPLICABILITY (MANDATORY). A001 is a mandatory paragraph issued to 14 CFR part 147 AMTSs. A001 lists:

- Name of the certificate holder;
- Air Agency Certificate number;
- Fixed location;
- Mailing address (if different from the fixed location); and
- Primary points of contact (name, telephone number, facsimile number, and email address).

OPSPEC A002—DEFINITIONS AND ABBREVIATIONS (MANDATORY). A002 is a mandatory paragraph issued to 14 CFR part 147 AMTSs. It includes definitions of words or phrases used in other paragraphs of the OpSpecs. These definitions are designed to enhance understanding between the FAA and the aviation industry in regards to part 147 AMTSs. Washington Headquarters (HQ) will add definitions as they are needed. Washington HQ developed definitions must not be changed by regional or district offices.

OPSPEC A003—RATINGS (MANDATORY). A003 is a mandatory paragraph issued to 14 CFR part 147 AMTS and lists the authorized rating(s) held by the certificate holder:

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A. **Airframe.** (Requires OpSpec B002 and B003 issuance.)

B. **Powerplant.** (Requires OpSpec B002 and B004 issuance.)

C. **Airframe and Powerplant.** (Requires OpSpec B002, B003, and B004 issuance.)

OPSPEC A004—SUMMARY OF SPECIAL AUTHORIZATIONS AND LIMITATIONS (MANDATORY). A004 identifies all optional/nonrequired OpSpecs and whether or not they are authorized to the AMTS.

OPSPEC A005—EXEMPTIONS (OPTIONAL). This is an optional OpSpec paragraph issued to 14 CFR part 147 AMTSs if they conduct operations under the provisions of any exemption. In order for an AMTS to conduct these operations, the exemption must be listed in A005. The current exemption number and expiration date must be selected for insertion into A005. List the exemption numbers in numerical order. Enter a brief description of the exemption or, if appropriate, the exempted regulations in the space labeled "Remarks and/or References" (adjacent to each exemption). If certain conditions or limitations related to the exemption are specified in another paragraph of the OpSpecs, the reference number of the other paragraph must also be entered in this space. For example, if the AMTS is granted an exemption to allow students to test for the General knowledge test upon completion of the General curriculum, insert the limitations, if any, in the "Remarks and/or References" section.

OPSPEC A006—MANAGEMENT PERSONNEL (MANDATORY). This is a mandatory OpSpec paragraph to be issued to 14 CFR part 147 AMTSs for the purpose of identifying AMTS management personnel. Persons will be listed by position title, name, telephone number, facsimile number, and email address.

OPSPEC A007—DESIGNATED PERSONS (MANDATORY). A007 is a mandatory paragraph issued to 14 CFR part 147 AMTSs. It lists the authorized person(s) by name, title, and the paragraph of the OpSpec that he or she is authorized to apply for and receive.

NOTE: Individuals' titles listed in A007 should match the title in the enhanced Vital Information Database (eVID).

OPSPEC A012. DECOMMISSIONED.

OPSPEC A013—INSTRUCTORS (MANDATORY). A013 identifies the certificated instructors and/or specialized instructors to meet the requirements of 14 CFR part 147, §§ 147.5, 147.23, and 147.36.

OPSPEC A025—RECORDKEEPING SYSTEM (MANDATORY). A025 is a mandatory OpSpec paragraph issued to 14 CFR part 147 AMTS to identify the type and location of the recordkeeping system. Paragraph (a) identifies the AMTSs recordkeeping system either by a reference to their manual or by a description of the system that is used. Paragraph (b) Table 1 identifies the location of records by physical address, mailing address (if different from physical address), point of contact (POC) name, telephone and facsimile number, and email address of the contact person with access to the records. If the AMTS is authorized to use an electronic/digital record keeping system, paragraph (c) is used to reference the record system in the school's

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manual or to provide a description of the record system used. If the AMTS is authorized to use electronic signatures, paragraph (d) is used to provide a reference to that system in the school's manual or a description of the system that is used.

OPSPEC A026—AUTHORIZATIONS/LIMITATIONS (OPTIONAL).

A. This is an optional OpSpec paragraph issued to a 14 CFR part 147 AMTS if the AMTS is authorized to offer Distance Learning as a teaching delivery method. If this OpSpec is issued to an AMTS, Table 1 would indicate the subject/topics and applicable teaching levels that the AMTS is authorized to provide.

B. The certificate holder is not authorized to conduct Distance Learning curriculum delivery in any area that is not specified in this OpSpec. Any use of Distance Learning must be approved by the Administrator. Additionally, the certificate holder must specify all uses of Distance Learning in their operating or procedures document.

OPSPEC B002—REQUIRED MINIMUM CURRICULUM FOR GENERAL (PART 147 APPENDIX B) (MANDATORY). This is a mandatory OpSpec paragraph to be issued to all 14 CFR part 147 AMTSs.

OPSPEC B003—REQUIRED MINIMUM CURRICULUM FOR AIRFRAME (PART 147 APPENDIX C) (MANDATORY). This is a mandatory OpSpec paragraph issued to a 14 CFR part 147 AMTS only if they hold an airframe, or combined Airframe and Powerplant (A&P) rating. This paragraph would not be issued to an AMTS if they held only a powerplant rating.

OPSPEC B004—REQUIRED MINIMUM CURRICULUM FOR POWERPLANT (PART 147 APPENDIX D) (MANDATORY). This is a mandatory OpSpec paragraph issued to a 14 CFR part 147 AMTS only if they hold a powerplant, or combined Airframe and Powerplant (A&P) rating. This paragraph would not be issued to an AMTS if they held only an airframe rating.

RESERVED. Paragraphs 3-1062 through 3-1070.

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CHAPTER 19 TRAINING PROGRAMS AND AIRMAN QUALIFICATIONS

Section 1 Scope, Concepts, and Definitions

3-1071 TRAINING PROGRAM OVERVIEW.

A. Flightcrew Member Training Programs. This chapter contains direction and guidance to be used by Federal Aviation Administration (FAA) personnel responsible for the evaluation, approval, and surveillance of Title 14 of the Code of Federal Regulations (14 CFR) part 121 and part 135 flightcrew member training programs. This section contains concepts and definitions that are used throughout the chapter:

- Section 2 addresses the training program approval process.
- Section 3 addresses basic indoctrination curriculum segments.
- Section 4 addresses emergency training curriculum segments.
- Section 5 addresses ground training curriculum segments.
- Section 6 addresses flight training curriculum segments.
- Section 7 addresses qualification curriculum segments.
- Section 8 addresses special curriculum segments.
- Section 9 addresses differences training.
- Section 10 addresses recurrent training.
- Section 11 addresses requalification training.
- Section 12 addresses related aircraft designations, training, and deviations for part 121.
- Section 13 addresses pilot in command line checks.
- Section 14 addresses remedial training and tracking for part 121.
- Section 15 addresses air ambulance training programs.

NOTE: Unless otherwise specified in this chapter, the term “operator” applies equally to an applicant for a certificate and an existing certificate holder.

B. Operator Training Program Development. An applicant for an air carrier certificate or operating certificate is required to develop a training program. An existing operator may need to revise its training program when purchasing new equipment, operating in a new environment, or obtaining new authorizations, or when new FAA requirements are specified. These new or revised training requirements must be incorporated into the operator’s training program. Each part 121 and part 135 operator (with the exception of a part 135 operator limited to a single pilot or a single pilot in command (PIC)) must obtain FAA approval of the curricula used for training flightcrew members, instructors, check pilots, and check Flight Engineers (FE). The operator is responsible for ensuring that its training program is complete, current, and in compliance with the regulations.

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C. Operator Contracting with Training Providers.

1) Entities other than the certificate holder (other certificate holders or 14 CFR part 142 training centers) may train, test, or check that certificate holder's flightcrew members, instructors, check pilots, and check FEs, provided that:

a) There is a preexisting contractual or other arrangement;

b) That arrangement is in the primary certificate holder's FAA-approved training program; and

c) The training, testing, and checking is conducted in accordance with the primary certificate holder's approved training program.

2) Guidance for outsource training can be found in Volume 3, Chapter 54, Section 5, Part 142 Training Centers: Outsource Training—Air Operators and/or Fractional Ownership Program Managers Contracting With Training Providers. Guidance for the issuance of Operations Specification (OpSpec) A031, Contract Training, authorizing such arrangements can be found in Volume 3, Chapter 18, Section 3, Part A Operations Specifications—General.

D. Operator Training Program Approval. It is the policy of the Flight Standards Service (AFS) to encourage operators to be innovative and creative when developing training methods and techniques. Principal operations inspectors (POI) are responsible for ensuring that regulatory requirements are met and that the operator's flightcrew members can competently perform their assigned duties before they are authorized to enter revenue service. Meeting regulatory requirements is paramount, but POIs should also embrace innovation in training delivery techniques. POIs should work collaboratively with their assigned carrier to explore new training techniques while also ensuring the carrier validates the results of any alternative techniques.

3-1072 DEFINITIONS. The following terms are used throughout this chapter and are defined as follows:

A. Aircraft Evaluation Group (AEG). FAA organization that sets training, checking, currency, type rating, Master Minimum Equipment List (MMEL), and maintenance standards for assigned certificated aircraft types. AEGs also address operational aspects of aircraft type certification and resolution of service difficulties.

B. Base Aircraft. An aircraft identified by a certificate holder for use as a reference to compare differences with another aircraft.

C. Categories of Training. A classification of training based on the previous qualification of the flightcrew member. Categories of training consist of one or more curricula. The categories of training are initial new-hire, initial equipment, transition, upgrade, recurrent, and requalification.

D. Checking and Qualification Modules. An integral part of a qualification curriculum segment, which contains checking and qualification requirements specified under part 121 or

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part 135. For example, a qualification curriculum segment may contain a proficiency check module, a Line-Oriented Flight Training (LOFT) module, an Operating Experience (OE) module, and a consolidation of knowledge and skills module.

E. Common Type Rating. Common type rating is a term used in Flight Standardization Board (FSB) reports to describe a relationship between type ratings for aircraft with different type certificates (TC) that have no greater than level D training differences. See subparagraph GG for type rating.

F. Consolidation of Knowledge and Skills. A process by which a pilot, through practice and practical experience, increases proficiency in newly acquired knowledge and skills.

G. Courseware. Instructional material developed for each curriculum. This is information in lesson plans, instructor guides, computer software programs, audiovisual programs, workbooks, aircraft operating manuals, and handouts. Courseware must accurately reflect curriculum requirements, be effectively organized, and properly integrate with instructional delivery methods.

H. Currency. The experience necessary, within a specified period of time, for the safe operation of aircraft, equipment, and systems. Currency may include, but is not limited to, recent experience.

I. Curriculum. A complete training agenda specific to an aircraft type, a flightcrew member duty position, and a category of training. An example is an “initial new-hire, Boeing 727 Flight Engineer (FE) curriculum.” Each curriculum consists of several curriculum segments.

J. Curriculum Segment. The largest subdivision of a curriculum containing broadly related training subjects and activities based on regulatory requirements. Curriculum segments are logical subdivisions of a curriculum, which can be separately evaluated and individually approved. Examples are a ground training segment and a flight training segment. Each curriculum segment consists of one or more training modules.

K. Designated Related Aircraft. Any two or more aircraft of the same make with different TCs that have been designated as related by the Air Transportation Division (AFS-200) based upon request from the part 121 operator. This designation may allow credit between those aircraft to be applied for training, checking, recent experience, OE, operating cycles, and line operating flight time for consolidation of knowledge and skills. See subparagraph Y for related aircraft. See Volume 3, Chapter 19, Section 12, Related Aircraft Designations, Training, and Deviations—Part 121, for additional information regarding related aircraft designation.

L. Duty Position. The functional or operating position of a crewmember or aircraft dispatcher. For parts 121 and 135 operations, duty positions are PIC, second in command (SIC), FE, flight attendant (F/A), and aircraft dispatcher.

M. Element. An integral, subject-oriented (not task-oriented) part of a training, checking, or qualification module. For example, an electrical power ground training module may include such elements as a direct current (DC) power system, an alternating current (AC) power system, and circuit protection.

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N. Eligibility Period. Three calendar-months (the calendar-month before the training/checking month, the training/checking month, and the calendar-month after the training/checking month). During this period, a flightcrew member must satisfactorily complete the required recurrent ground or flight training, flight check, proficiency check, competency check, or line check to remain in a qualified status. Training or checking completed during the eligibility period is considered to be completed during the training/checking month.

O. Event. An integral, task-oriented part of a training, checking, or qualification module that requires the use of a specific procedure or procedures. A training event provides a student an opportunity for instruction, demonstration, and/or practice using specific procedures. A checking or qualification event provides an evaluator the opportunity to evaluate a student's ability to correctly accomplish a specific task without instruction or supervision.

P. Final Approval. An FAA letter without an expiration date that authorizes an operator to continue training in accordance with a specific curriculum or curriculum segment. Final approval involving arrangements with other certificate holders or part 142 training centers must include the issuance of OpSpec A031.

Q. Flight Standardization Board (FSB). An FSB is a designated group of operations inspectors who determine type rating, certification, and training and qualification requirements for new or related aircraft. An FSB is usually established for large turbojet and turbopropeller aircraft, Special Federal Aviation Regulation (SFAR) No. 41 airplanes, and 14 CFR part 23 commuter category airplanes. An FSB is not usually established for 14 CFR parts 23 and 27 aircraft, unless the aircraft have unique design, flight, or handling characteristics.

R. Flight Standardization Board (FSB) Report. The FSB issues a report after evaluating any new or related aircraft. The FSB report contains minimum training and qualification requirements for the aircraft and any related aircraft. The FSB report also contains any special training requirements for that aircraft type.

S. Initial Approval. An FAA letter that conditionally authorizes an operator to begin training under a specific curriculum or curriculum segment pending an evaluation of training effectiveness. An initial approval letter must specify an expiration date for the conditional authorization. Initial approval involving arrangements with other certificate holders or part 142 training centers must include the issuance of OpSpec A031.

T. Instructional Delivery Methods. Methodology for conveying information to a student. This may include lectures, demonstrations, audiovisual presentations, programmed and directed self-study workshops, and drills. Ground training devices (GTD), flight simulation training devices (FSTD), aircraft, and computer workstations are also considered instructional delivery methods.

U. Modular Training. The concept of program development in which logical subdivisions of training programs are developed, reviewed, approved, and modified as individual units. Curriculum segments and modules may be used in multiple curricula. The modular approach allows great flexibility in program development and reduces the administrative workload on both operators and instructors in the development and approval of these programs.

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V. Planned Hours—Part 135. Part 135 does not require programmed hours to be defined within training programs. The hours associated with these programs are typically referred to as planned hours to avoid confusion with the requirements of part 121. Part 135 does, however, require each instructor, supervisor, or check pilot to certify the proficiency and knowledge of each flightcrew member upon completion of required training or evaluation. This certification may occur at any time when the instructor believes that the individual has reached the required level of proficiency during his or her scheduled training, provided that all elements and events of the approved training program have been successfully trained.

W. Programmed Hours—Part 121. In accordance with part 121, § 121.403, each curriculum must include the programmed hours that the certificate holder will apply to the training. For initial new-hire, initial equipment, and recurrent categories, part 121 subpart N specifies the minimum programmed hours that each curriculum must include, unless reduced in accordance with § 121.405. Although part 121 subpart N does not specify minimum programmed hours for the other categories of training, the certificate holder must still include programmed hours in each curriculum.

X. Recent Experience. With respect to pilot flightcrew members, the flight experience required by § 121.439 or part 135, § 135.247. With respect to FEs, the flight experience required by § 121.453.

Y. Related Aircraft. Any two or more aircraft of the same make with either the same or different TCs that have been demonstrated and determined by the Administrator to have commonality.

Z. Related Aircraft Differences Training. The flightcrew member training for aircraft with different TCs that have been designated as related by AFS-200. (See Volume 3, Chapter 19, Section 12, for additional information regarding related aircraft differences training.)

AA. Testing and Checking. Methods for evaluating students as they demonstrate a required level of knowledge in a subject and, when appropriate, apply the knowledge and skills learned in instructional situations to practical situations.

BB. Training Hours. The total amount of time necessary to complete the training required by a curriculum segment. This must provide an opportunity for instruction, demonstration, practice, and testing (as appropriate). This time must be specified in hours on the curriculum segment outline. For part 121, these are the programmed hours. For part 135, these hours are typically referred to as planned hours. A training hour includes time for normal breaks, usually 10 minutes each hour. Lunch breaks are not included.

CC. Training Module. A subpart of a curriculum segment that constitutes a logical, self-contained unit. A module contains elements or events that relate to a specific subject. For example, a ground training curriculum segment could logically be divided into modules pertaining to aircraft systems (such as hydraulic, pneumatic, and electrical). As another example, a flight training curriculum segment is normally divided into flight periods, each of which is a separate module. A training module includes the outline, appropriate courseware, and the

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instructional delivery methods. It is usually, but not necessarily, completed in a single training session.

DD. Training Program. A system of instruction that includes curricula, facilities, FSTDs, training equipment, instructors, check pilots and check FEs, courseware, instructional delivery methods, and testing and checking procedures. This system must satisfy the training program requirements of part 121 or part 135 and ensure that each flightcrew remains adequately trained for each aircraft, duty position, and kind of operation in which the person serves.

EE. Training/Checking Month (Base month). The calendar-month during which a flightcrew member is due to receive required recurrent ground or flight training, a required flight check, a required proficiency check, a required competency check, or a required line check. Calendar-month means the first day through the last day of a particular month.

FF. Type Certificate (TC). An aircraft type includes all aircraft that are similar in design produced under a single TC issued, according to 14 CFR part 21 subpart B. Each aircraft type must have a TC before it can be used in air transportation. Aircraft TC determinations are established by an Aircraft Certification Office (ACO).

GG. Type Rating. A pilot type rating is an endorsement on a pilot certificate. It is an authorization to serve as PIC of a large (over 12,500 pounds gross takeoff weight (GTOW)) aircraft, a turbojet aircraft, or other aircraft when determined necessary by the Administrator. A type rating is assigned to a single aircraft type, typically make and model (e.g., B-757). However, in some cases, a different series of the same model may require a different type rating. For example, the B-747-100, -200, and -300 series require one type rating (B-747), but the B-747-400 and -800 require a different type rating (B-747-4). An aircraft that has commonality with another aircraft may be assigned a type rating that is considered in common with another type rating (e.g., B-757 and B-767).

3-1073 AIRCRAFT FAMILIES. There are five basic families of aircraft used in parts 121 and 135 operations. Aircraft are grouped into families according to their performance and flight characteristics to simplify development of training programs. The ground and flight training requirements for flightcrew members are significantly different for each family of aircraft. Within each aircraft family, however, the ground and flight training requirements are similar, even though individual aircraft may be quite different in construction and appearance. The five families of aircraft are as follows:

- Transport category and commuter category airplanes;
- Multiengine turbopropeller and SFAR airplanes;
- Multiengine general purpose airplanes;
- Single-engine general purpose airplanes; and
- Helicopters.

A. Transport Category and Commuter Category Airplane Family. The transport category and commuter category airplane family includes all airplanes certified under 14 CFR part 25 (and predecessor rules such as Civil Air Regulations (CAR) 4, 4a, and 4b and Special CAR Nos. SR-422, SR-422A, and SR-422B) and those few turbojet airplanes certified

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under part 23. This family of airplanes also includes those few large airplanes of 30 or more passenger seats certified under Aeronautics Bulletin 7a (DC-3, L-18, C-46) known as large, nontransport airplanes when operated in revenue service. This aircraft family also includes those airplanes certified under part 23 in the commuter category.

B. Multiengine Turbopropeller and SFAR Airplane Family.

1) This aircraft family consists of multiengine turbopropeller airplanes (except those multiengine turbopropeller airplanes included in the transport category and commuter category airplane family) and those airplanes certified under part 23 in the normal category. This family does not include single-engine turbopropeller airplanes.

2) For the purposes of the flight competency check required by § 135.293(b), type, as to an airplane, means any one of a group of airplanes determined by the FAA to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For example, a pilot who completes a flight competency check in airplane A is not required to complete a flight competency check in airplane B if the FAA has determined that airplane A and airplane B are in the same group. Table 3-33, Multiengine Turbopropeller and SFAR Airplane Groups for the Purposes of the § 135.293(b) Competency Check, lists the specific makes and models in this aircraft family that the FAA has determined belong to the same group.

3) In cases where an operator requests approval to use one or more FSTDs, each FSTD must accurately replicate the specific make, model, and series (M/M/S) of the operator's aircraft as closely as possible in order to minimize required differences training and provide the best quality of training possible. In accordance with §§ 135.335 and 121.407, each FSTD must be specifically approved for the operator's use. Typically, this is accomplished by including a listing of each approved device in the operator's training program.

Table 3-33. Multiengine Turbopropeller and SFAR Airplane Groups for the Purposes of the § 135.293(b) Competency Check

Group	Models
Beechcraft Turbopropeller	B65-A90, 90, 99, 100, and 200.
Cessna Turbopropeller	Of the 400 Series.
Piper	Cheyenne Series.
Rockwell Commander Turbopropeller	680T, 690V, 680W, and 690.
Fairchild	SA 226-227 Series.

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C. Multiengine General Purpose Airplane Family.

1) This aircraft family includes all multiengine airplanes certified for operations with nine or fewer passenger seats and not more than 12,500 pounds maximum takeoff weight (MTOW). It does not include any airplanes certified in the transport or commuter category regardless of the MTOW. Pilots operating airplanes in this family must have similar knowledge, skills, and abilities to operate them under part 135. For example, a pilot operating an airplane within this family may be required to have diversified training in short- and soft-field landings, but is not required to have training in V_1 cuts. This type of operation may require specific training, such as seaplane operations.

2) For the purposes of the flight competency check required by § 135.293(b), type, as to an airplane, means any one of a group of airplanes determined by the FAA to have a similar means of propulsion, the same manufacturer, and no significantly different handling or flight characteristics. For example, a pilot who completes a flight competency check in airplane A is not required to complete a competency check in airplane B if the FAA has determined that airplane A and airplane B are in the same group. Table 3-34, Multiengine General Purpose Airplane Groups for the Purposes of the § 135.293(b) Competency Check, lists the specific makes and models in this aircraft family that the FAA has determined belong to the same group.

Table 3-34. Multiengine General Purpose Airplane Groups for the Purposes of the § 135.293(b) Competency Check

Group	Models
Beechcraft Reciprocating	B50, 55, 56, 57, 58, 60, 70, and 95.
Cessna Reciprocating	T303, C310, 320, 340, and 400 Series.
Cessna	336 and 337.
Piper Reciprocating	PA-23, PA-30, PA-31, PA-34, PA-39, and PA-44.
Rockwell Commander Reciprocating	500, 560, 680, 685, and 720.

D. Single-Engine General Purpose Airplane Family. This aircraft family includes all single-engine airplanes of not more than 12,500 pounds MTOW, other than turbine-powered airplanes. Pilots operating airplanes in this family must have similar knowledge, skills, and abilities to operate them under part 135. For example, pilots operating single-engine airplanes are required to have training that applies to all airplanes in this group, such as forced landing procedures. The type of operation may require specific training, such as seaplane or skiplane training.

E. Helicopter Family. This aircraft family includes all helicopters. Helicopter operations under part 135 require similar knowledge, skills, and abilities. General training requirements for this family of aircraft include such events as autorotation and anti-torque failure. The type of operation may require specific training in events such as high-altitude landings or Airborne Radar Approach (ARA) procedures.

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NOTE: There are other types of aircraft, such as single-engine turbopropeller, which do not fit in the five families of aircraft. Each of these types of aircraft requires a separate training program.

3-1074 TRAINING PROGRAMS: A SCHEMATIC DEPICTION. Figure 3-68, Schematic Depiction of Training Programs, shows the relationship between the total training program and the categories of training, curricula, curriculum segments, and training modules.

A. Modular Approach. The illustration in Figure 3-68 is only representative and is intended to present a framework for the modular development of a training program. By using this modular approach, the POI has various strategies available for the evaluation of training effectiveness and the planning of long-term surveillance. These strategies are discussed in Section 2 of this chapter.

B. Parts of the Training Program Depiction. The illustration in Figure 3-68 consists of the following five parts:

1) Part A depicts representative components which, when combined, constitute an operator's overall training program. These components differ in that some must be specifically approved by the FAA (e.g., check pilots), while others are accepted as essential supporting elements (e.g., facilities).

2) Part B illustrates the six categories of training that are recognized by the FAA.

3) Part C is an example of a curriculum that is a complete agenda of training specific to an aircraft type and flightcrew member duty position. This example depicts a PIC B-727 transition training curriculum.

4) Part D is an example of a specific curriculum segment and shows that it consists of several training modules. This example is the flight training curriculum segment of the PIC B-727 transition training curriculum.

5) Part E is an example of a specific training module. In this case, the module is full flight simulator (FFS) lesson number four.

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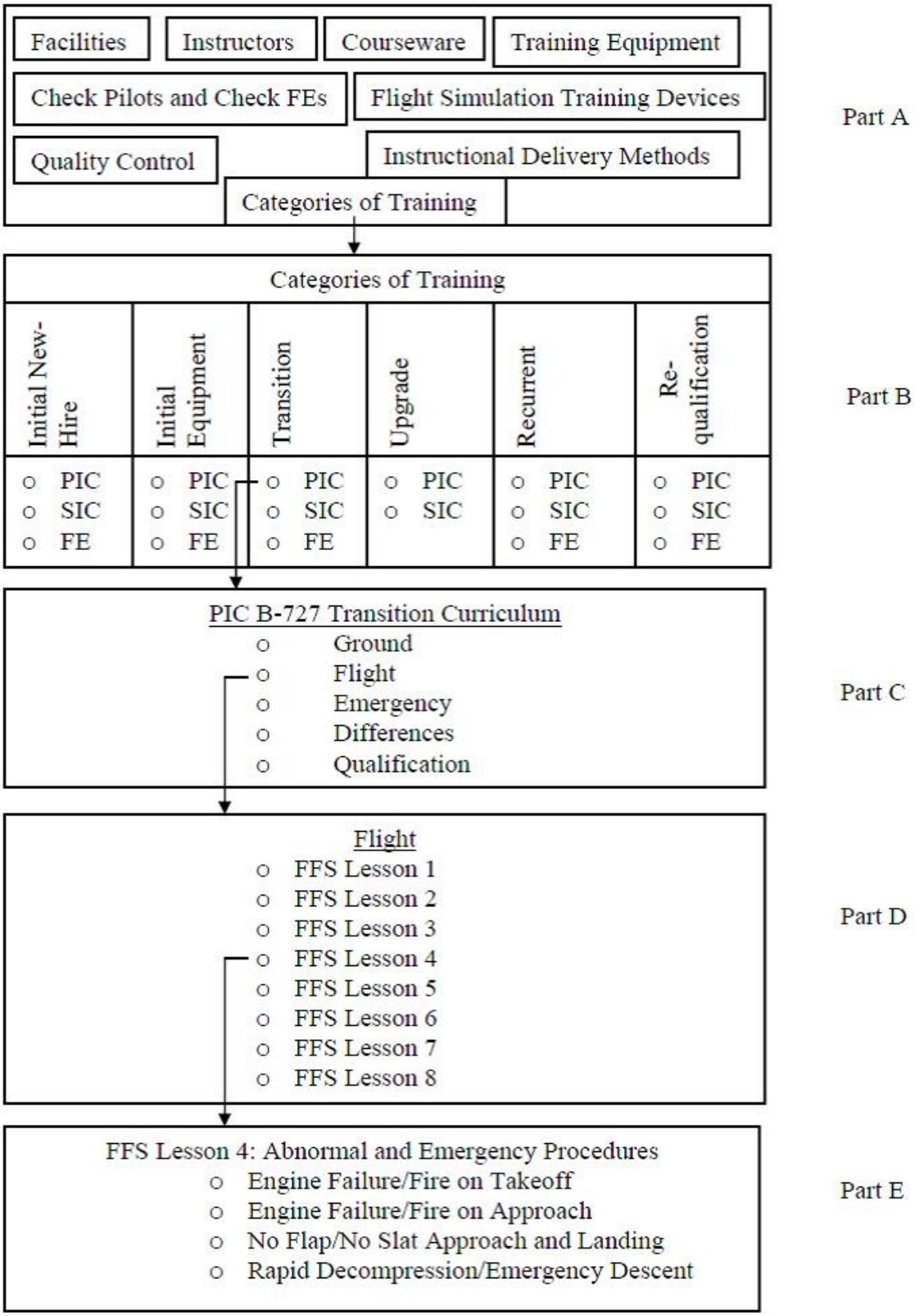
Figure 3-68. Schematic Depiction of Training Programs



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3-1075 CATEGORIES OF TRAINING. There are six basic categories of training applicable to part 121 and part 135 operators. The primary factors that determine the appropriate category of training are the student's previous experience with the operator and previous duty position with the operator. Each category of training consists of one or more curricula, each of which is specific to an aircraft type and a duty position (e.g., B-727 FE, B-727 PIC, and B-727 SIC). Training should be identified with and organized according to specific categories of training. When discussing training requirements, FAA inspectors should be specific regarding the category of training being discussed and use the nomenclature described in this order. POIs should encourage operators to use this nomenclature when developing new training curricula or revising existing training curricula. Use of this common nomenclature improves standardization and mutual understanding. The six categories of training are briefly discussed in the following subparagraphs.

A. Initial New-Hire Training. This training category is for personnel who have no previous experience with the operator (newly hired personnel). It also applies, however, to personnel employed by the operator who have not previously held a flightcrew member duty position with that operator. Initial new-hire training includes basic indoctrination training and training for a specific duty position and aircraft type. Except for a basic indoctrination curriculum segment, the regulatory requirements for initial new-hire and initial equipment training are the same. Since initial new-hire training is usually the employee's first exposure to specific company methods, systems, and procedures, it must be the most comprehensive of the six categories of training. For this reason, initial new-hire training is a distinct, separate category of training and should not be confused with initial equipment training. As defined by this handbook, initial equipment training is a separate category of training.

B. Initial Equipment Training. This category of training is for personnel who have been previously trained and qualified for a flightcrew member duty position by the operator (not new hires) and who are being reassigned for any of the following reasons:

1) For part 121 operations, the flightcrew member is being reassigned in one of the following circumstances:

a) Reassignment is to any flightcrew member duty position on an airplane of a different group (as defined by § 121.400, Group I is reciprocating and turbopropeller-powered and Group II is turbojet-powered). For example, a PIC on a DHC-8 is reassigned as a PIC on a B-717.

b) Reassignment is to a different flightcrew member duty position on a different airplane type, and the flightcrew member has not been previously trained and qualified by the operator for that duty position and airplane type. For example, an SIC on a B-737 is reassigned as a PIC on a B-757.

2) For part 135 operations, reassignment is to a different flightcrew member duty position on a different aircraft type, and the flightcrew member has not been previously trained and qualified by the operator for that flightcrew member duty position and aircraft type. For example, an SIC on a Cessna 400 series is reassigned as a PIC on a Beechcraft 200.

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C. Transition Training. This category of training is for a flightcrew member who has been previously trained and qualified for a specific flightcrew member duty position by the operator and who is being reassigned to the same flightcrew member duty position on a different aircraft type. For example, an SIC on a B-737 is reassigned as an SIC on an A-320. For part 121 operations, the different type aircraft must be in the same group. If the different aircraft is not in the same group, initial equipment training is the applicable category of training.

D. Upgrade Training. This category of training is for a flightcrew member who has been previously trained and qualified as either SIC or FE by the operator and is being reassigned as either PIC or SIC, respectively, to the same aircraft type for which the flightcrew member was previously trained and qualified. For example, an SIC on a G-V is reassigned as a PIC on a G-V.

E. Recurrent Training. This category of training is for a flightcrew member who has been trained and qualified by the operator, who will continue to serve in the same duty position and aircraft type, and who must receive recurring training and/or checking within an appropriate eligibility period.

F. Requalification Training. This category of training is for a flightcrew member who has been trained and qualified by the operator but has become unqualified to serve in a particular flightcrew member duty position on an aircraft type due to not having received recurrent ground or flight training and/or a required proficiency check, flight check, line check, or competency check within the appropriate eligibility period. Requalification training is also applicable in the following situations:

- PICs who are being reassigned as SICs on the same aircraft type when seat-dependent training is required; and
- PICs and SICs who are being reassigned as FEs on the same aircraft type provided they were previously qualified as FEs on that aircraft type. If the PIC or SIC was not previously qualified as an FE on that aircraft type, initial equipment training is the applicable category of training.

G. Summary of Categories of Training. The categories of training are summarized in general terms as follows:

1) All personnel not previously employed by the operator as a flightcrew member must complete initial new-hire training.

2) All personnel must complete recurrent training for the duty position and aircraft type for which they are currently assigned within the appropriate eligibility period.

3) All personnel who have become unqualified for a duty position on an aircraft type with the operator must complete requalification training to reestablish qualification for that duty position and aircraft type.

4) All personnel who are being reassigned by the operator to a different duty position and/or aircraft type must complete initial equipment, transition, upgrade, or requalification training, depending on the aircraft type and duty position for which they were previously qualified.

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NOTE: Figure 3-69, Categories of Training in Part 121 Operations, and Table 3-35, Categories of Training in Part 135 Operations, summarize these categories of training for part 121 and part 135, respectively. These tables indicate the appropriate category of training for normal flightcrew member progression or reassignment. They may not address certain situations. The guidance in this paragraph and the requirements of appropriate regulations must be followed when the tables do not address such situations.

Table 3-35. Categories of Training in Part 135 Operations

		New Duty Position			
		PIC 1	PIC 2	SIC 1	SIC 2
Current Duty Position	PIC 1	---	T	R	I
	SIC 1	U	I	---	T

Table key:
1 = a specific aircraft type (different from 2)
2 = a specific aircraft type (different from 1)
I = initial equipment training
R = requalification training
T = transition training
U = upgrade training

Examples:
- Current duty position is pilot in command (PIC) on aircraft type 1. Person is assigned to new duty position as PIC on aircraft type 2. Transition training is required.
- Current duty position is second in command (SIC) on aircraft type 1. Person is assigned to PIC duty position on aircraft type 1. Upgrade training is required.

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Figure 3-69. Categories of Training in Part 121 Operations

		New Duty Position											
		PIC 1A	PIC 1B	PIC 2A	PIC 2B	SIC 1A	SIC 1B	SIC 2A	SIC 2B	FE 1A	FE 1B	FE 2A	FE 2B
Current Duty Position	PIC 1A	---	T	I	I	R	I	I	I	R/I	I	I	I
	PIC 2A	I	I	---	T	I	I	R	I	I	I	R/I	I
	SIC 1A	U	I	I	I	---	T	I	I	R/I	I	I	I
	SIC 2A	I	I	U	I	I	I	---	T	I	I	R/I	I
	FE 1A	I	I	I	I	U	I	I	I	---	T	I	I
	FE 2A	I	I	I	I	I	I	U	I	I	I	---	T

Table key:
1A = a specific Group I airplane type (different from 1B)
1B = a specific Group I airplane type (different from 1A)
2A = a specific Group II airplane type (different from 2B)
2B = a specific Group II airplane type (different from 2A)
I = initial equipment training
R = requalification training
T = transition training
U = upgrade training
R/I = requalification training if previously qualified for the duty position on that airplane type or initial equipment training if not previously qualified for the duty position on that airplane type.

Examples:

- Current duty position is pilot in command (PIC) on airplane type 1A. Person is assigned to new duty position as PIC on airplane type 1B. Transition training is required.
- Current duty position is second in command (SIC) on airplane type 1A. Person is assigned to PIC duty position on airplane type 1A. Upgrade training is required.
- Current duty position is PIC on airplane type 2A. Person is assigned to new duty position as PIC on airplane type 1B. Initial equipment training is required.
- Current duty position is PIC on airplane type 2A. Person is assigned to new duty position as Flight Engineer (FE) on airplane type 2A. If the person was previously qualified as FE on airplane type 2A, then requalification training is required. If the person was not previously qualified as FE on airplane type 2A, then initial equipment training is required.

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3-1076 APPLICABILITY OF TRAINING CATEGORIES. Usually, operators will need to conduct training in all six categories of training. Recurrent training applies to all operators. Initial equipment training, transition training, upgrade training, and requalification training apply in most situations. However, transition training is not applicable for an operator who operates only one aircraft type. Initial new-hire training applies to operators who train and qualify newly hired personnel or personnel who have not been previously qualified as flightcrew members by that operator.

3-1077 CURRICULUM DEVELOPMENT. Operators must develop one or more curricula for each category, specific duty position, and aircraft type in which the operator conducts training.

A. Required Curricula. The operator is required to develop and maintain only those curricula that will be used. For example, if an operator specifies that all newly hired pilots must be trained first as B-727 FEs, the appropriate curriculum for that category of training would be B-727 FE initial new-hire training. The operator would not be required to develop any initial new-hire pilot training curricula for other aircraft or duty positions. Another example would be if a part 135 operator specifies that all newly hired pilots must be trained first as SICs on the BE-99, then only a BE-99 SIC initial new-hire training curriculum would need to be developed and maintained.

B. Single-Engine General Purpose Airplanes. A part 135 operator may include all makes and models of airplanes of the single-engine general-purpose family in a single curriculum for each category and duty position, provided the curriculum includes airplane-specific training for each make and model. For example, a single-engine PIC initial new-hire training curriculum may include both Cessna 172 and Piper PA-28 airplanes, provided the curriculum includes training on the specifics for each make and model (e.g., operating limitations, systems, and performance).

NOTE: Single-engine turbine-powered airplanes are not included in the single-engine general-purpose family. A separate curriculum is required for each type of single-engine turbine-powered airplane.

C. Multiengine General Purpose Airplanes. A part 135 operator may include all multiengine general-purpose airplanes that have been determined to be in the same group in a single curriculum for each category and duty position, provided the curriculum includes airplane-specific training for each model. (See Table 3-34 for the airplanes in this family that the FAA has determined belong to the same group.) For example, a Cessna multiengine reciprocating PIC initial equipment curriculum may include both the Cessna 310 and Cessna 320, provided the curriculum includes training on the specifics for each airplane type (e.g., operating limitations, systems, and performance).

D. Multiengine Turbopropeller and SFAR Airplanes. A part 135 operator may include all multiengine turbopropeller or SFAR airplanes that have been determined to be in the same group in a single curriculum for each category and duty position, provided the curriculum includes airplane-specific training for each model. (See Table 3-33 for the airplanes in this family that the FAA has determined belong to the same group.) For example, a Beechcraft

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multiengine turbopropeller PIC transition curriculum may include both the Beechcraft 100 and Beechcraft 200, provided the curriculum includes training on the specifics for each airplane type (e.g., operating limitations, systems, and performance).

E. Transport Category and Commuter Category Airplanes. An operator must develop a curriculum for each airplane type in the transport category and commuter category family. An operator may include all models of a specific airplane type in a single curriculum for each category and duty position. Operators must provide differences training to qualify crewmembers in different models, series, or variants of the same airplane type.

F. Helicopters. An operator must develop a curriculum for each helicopter type. An operator may include all models of a specific helicopter type in a single curriculum for each category and duty position. Operators must provide differences training to qualify crewmembers in different models, series, or variants of the same helicopter type.

G. Curriculum Outlines. Curriculum outlines are documents used by operators to specify the curriculum content. Outlines must contain at least the information specified in Volume 3, Chapter 19, Section 2. This information is required so that the POI can determine whether the operator's curriculum meets regulatory requirements during phase three of the approval process (see Volume 3, Chapter 19, Section 2). Curriculum outlines should contain enough detail so that lesson plans can later be constructed from them. Detailed information should be placed in lesson plans, training manuals, and other documents maintained by the operator. This material is reviewed during phase four of the approval process (see Volume 3, Chapter 19, Section 2).

H. Curriculum Segments. Curriculum segments that make up a curriculum depend upon the category of training and the duty position. Curriculum segments are titled as follows:

- Basic Indoctrination—§ 121.415(a)(1) or § 135.329(a)(1);
- Crew Resource Management Training—§ 135.330;
- Aircraft Ground Training—§ 121.419 or § 135.345;
- Emergency Training—§§ 121.417 and 121.805 or § 135.331;
- Flight Training—§ 121.424, § 121.425, part 121 appendix E, part 121 appendix H, or § 135.347;
- Differences Training—§ 121.418(a) or § 135.341(b)(4);
- Related Aircraft Differences Training—§ 121.418(b);
- Special Curriculum Segment—various rules depending on the operation;
- Hazardous Materials (Will-Carry or Will-Not-Carry)—§§ 121.1001 through 121.1007, part 121 appendix O, or §§ 135.501 through 135.507, part 121 appendix O; and
- Qualification Segment—part 121 subpart O, part 121 appendix F, or part 135 subparts E and G.

I. Completion Requirements. Each person required to train under a curriculum must complete that curriculum in its entirety. Each student must satisfactorily complete all curriculum segments prescribed by an approved training curriculum. When a person has completed the

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training and checking specified by a curriculum, that person is qualified to serve in a specific duty position on a specific aircraft type.

3-1078 MULTIPLE CURRICULA OF A SINGLE CATEGORY. Operators may develop and have multiple curricula approved for any single duty position and aircraft type. These curricula may have different programmed or planned hours based on the flightcrew member's previous knowledge and skill. For example, a part 135 operator may develop initial new-hire training curricula for:

- Pilots that have previous experience in part 135 operations in the same aircraft type and flightcrew member duty position;
- Pilots that have previous experience in part 135 operations in the same aircraft type, but in a different flightcrew member duty position;
- Pilots that have previous experience in part 135 operations in a different aircraft type; or
- Pilots that have previous experience in 14 CFR part 91 subpart K (part 91K) operations.

NOTE: In these examples, each curriculum would have different programmed or planned hours to reflect the flightcrew member's level of knowledge and skill related to the certificate holder's operation or aircraft. Regardless of an individual's previous qualifications, it is the operator's responsibility to ensure that each individual is proficient and fully qualified in the operator's procedures and operations prior to authorizing the individual to operate as a required flightcrew member.

A. Prerequisites. Operators that choose to develop multiple curricula must clearly specify the prerequisites for entry into each specific curriculum. Examples of prerequisites include the following:

- Documentation of a competency check within the last 12 calendar-months;
- Minimum total flight-hours;
- Minimum flight-hours in type or class, as appropriate; and
- Documentation of experience as a flightcrew member in operations under the same part.

NOTE: The flightcrew member's permanent training record must include a certification and record that verifies that the flightcrew member meets or exceeds the prerequisites of the reduced training hour curriculum. When the operator enters the certification in a computerized recordkeeping system, the certifying company official who made the determination must be identified with that entry.

B. Limitations—Part 135. Reduced training hour curricula may be developed for initial new-hire, initial equipment, transition, or upgrade training, and must contain all the elements and events of the full curriculum. Reductions may be made in planned hours for aircraft-specific systems ground training and/or flight training based on a crewmember's previous knowledge and

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skill. However, reductions in planned hours based on a crewmember's previous knowledge or skill may not be made for certificate-holder-specific modules, including, but not limited to:

1) Basic indoctrination (§ 135.329).

2) Hazardous materials (hazmat) (§ 135.505), except as provided for in § 135.505(c), if the flightcrew member works for more than one certificate holder concurrently.

3) Emergency training (§ 135.331).

4) Crew Resource Management (CRM) training (§ 135.330).

5) Other certificate-holder-specific modules, such as those required by a certificate holder's OpSpecs or those determined by the certificate holder's POI.

NOTE: Reductions may not be made to the planned hours for any portion of recurrent training (except for hazmat, as provided for in § 135.505(c), if the flightcrew member works for more than one certificate holder concurrently).

NOTE: An individual must also satisfactorily complete the certificate holder's evaluation and qualification modules (e.g., required written/oral exams, competency and proficiency checks, line checks, and OE) before the certificate holder assigns him or her as a required flightcrew member. Reductions may not be made to the evaluation and qualification modules.

C. Limitations—Part 121. Reduced training hour curricula may be developed for initial new-hire, initial equipment, transition, or upgrade training, and must contain all the elements and events of the full curriculum. Reductions in programmed hours must be approved by the POI in accordance with § 121.405. See Volume 3, Chapter 19, Sections 3, 5, and 6, for additional information regarding reductions in programmed hours for part 121.

D. Flightcrew Members Employed by Multiple Operators. A flightcrew member who is employed (directly or by contract) by multiple operators concurrently must complete the applicable training curricula, including recurrent training, for each operator. In addition, the flightcrew member must satisfactorily complete each operator's checking and qualification modules, including recurrent checking.

3-1079 TRAINING MODULE CONSTRUCTION (ELEMENTS OR EVENTS). Curriculum segments consist of training modules. Training modules are in turn constructed of elements or events arranged in a logical sequence. Curriculum segments and modules should be constructed so that instruction proceeds from the most basic concept and skill to the more advanced in a building block approach. The scope and content of each training module depends upon the category of training and the curriculum in which the curriculum segment is to be incorporated. The number and content of modules for a particular curriculum segment may vary from one category of training to another. For example, aircraft ground training modules in the upgrade training category may not need to be as comprehensive as the aircraft ground training modules in the initial equipment category of training. The amount of detail in each module

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determines the training hours necessary to complete the training required by a curriculum segment.

A. Example Training Module Outlines. Operators should present training modules to the POI in outline form for initial approval. Table 3-36, Example of Related Elements in an Aircraft Ground Training Module Outline, and Table 3-37, Example of Related Events in a Flight Training Module Outline, are examples of training module outlines. These are only examples and are not intended to imply the only acceptable methods, sequence of instructional delivery, subject titles, or amount of detail.

Table 3-36. Example of Related Elements in an Aircraft Ground Training Module Outline

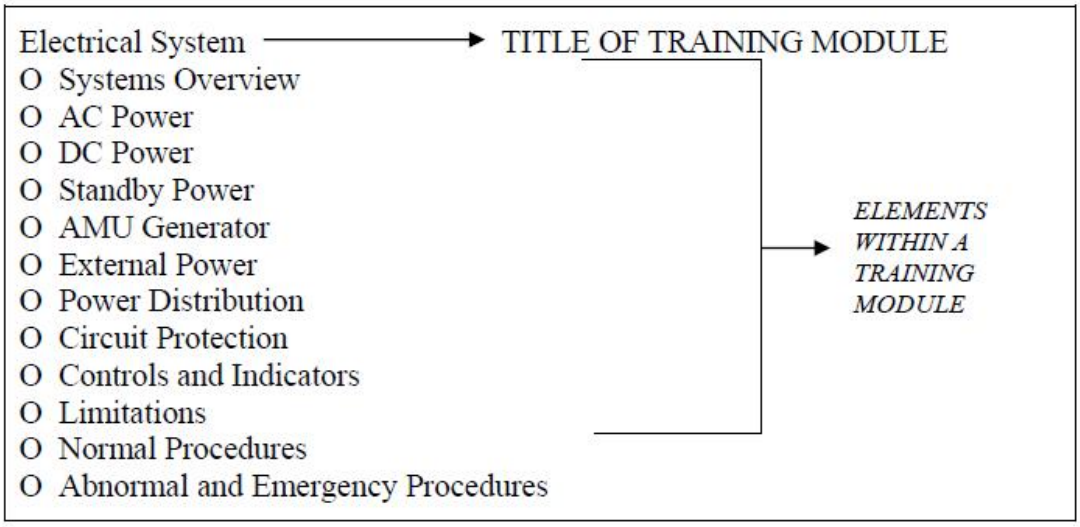
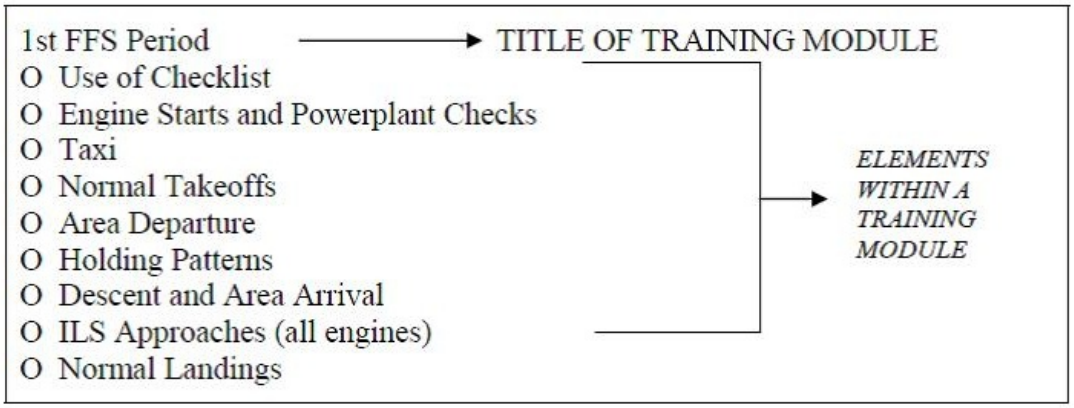


Table 3-37. Example of Related Events in a Flight Training Module Outline



B. Details in Training Module Outline. Operators must construct training module outlines with enough detail to ensure that the POI can identify that the essential features of the subject have been addressed and that regulatory requirements have been met. The training module outline will serve as a foundation from which the operator will develop complete and

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usable courseware and select appropriate instructional delivery methods. The effectiveness of courseware and instructional delivery methods cannot be evaluated before training begins and must, therefore, be evaluated during phase four of the approval process.

1) Adjustment to Training Module Outlines. Once approved, training module outlines normally remain relatively fixed, requiring adjustment only when new elements or events are introduced. For example, if the operator proposed to install Automatic Dependent Surveillance—Broadcast (ADS-B) equipment in his or her aircraft, existing training module outlines would need to be revised to include ground and flight training of ADS-B. A revision to a training module outline must be approved by the POI.

2) Adjustment to Courseware. The operator has the flexibility to make adjustments to courseware as long as the adjustment does not add or delete elements or events from the training module outline. Any changes (adding or deleting elements or events) to the training module outline must be approved by the POI. POIs may also find it necessary, on the basis of surveillance reports or other information, to require the operator to modify courseware, instructional delivery methods, and training module outlines.

C. Using a Training Module in Multiple Curricula and Categories of Training. A single training module may be used in more than one curriculum and in more than one category of training. For example, a training module that specifies a review of emergency evacuation procedures for recurrent training could be the same for requalification training. POIs should, however, encourage operators to develop courseware that places emphasis on the particular category of training. For example, PIC upgrade training should emphasize duty position responsibilities. The emphasis in SIC upgrade training (FE to SIC), however, should be on piloting skills as well as on the requirements of the new duty position. Transition training should emphasize aircraft systems and the procedures and piloting skills needed to operate a different aircraft type. In many cases, operators may develop different sets of courseware from a single training module outline to cover differences in emphasis.

RESERVED. Paragraphs 3-1080 through 3-1094.

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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 32 MANUALS, PROCEDURES, AND CHECKLISTS FOR 14 CFR PARTS 91K, 121, 125, AND 135

Section 14 Review the Operator's Mechanical Interruption Summary for Parts 121 and 135

3-3430 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

D. Maintenance: 3322.

E. Avionics: 5322.

3-3431 OBJECTIVE. This section provides guidance for monitoring an operator's fleet performance by tracking mechanical irregularities that occur during scheduled operations.

3-3432 GENERAL. Operators are required by Title 14 of the Code of Federal Regulations (14 CFR) part 121, § 121.705 and part 135, § 135.417 to submit a monthly Mechanical Interruption Summary (MIS). This report enables the inspector to evaluate the effectiveness of the operator's maintenance and manual procedures.

A. Requirement for Reporting Mechanical Irregularities.

1) Sections 121.563 and 135.65 require each certificate holder to provide an aircraft maintenance log for recording or deferring mechanical irregularities, as applicable, and the subsequent corrective actions performed. This log must be carried onboard each aircraft.

2) The operator's manual should provide a method where the pilot in command (PIC) will inform the operator of mechanical irregularities or defects that appear before, during, and after a flight. The operator uses this information to let the maintenance personnel know of any suspected problems so that they can perform the appropriate corrective action. This method of reporting is the basis for the required Service Difficulty Reports (SDR) and MIS.

B. Role of the Aviation Safety Inspector (ASI). Following the receipt of an operator's MIS, the ASI must evaluate the information for problem areas and significant trends. If a problem area or trend is evident, the inspector must decide on a course of action to investigate and/or correct the problem as necessary.

C. Obtaining Additional Information. The ASI may need to obtain more information than that available on the MIS. Possible sources of information include:

- Contact with the operator,
- Research of previous MIS and inspection reports, or
- Investigation of the operator's recent enforcement history for related violations.

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D. Analysis and Findings. Once the ASI has gathered the necessary data, he or she must analyze the findings to define the cause of the problem and determine a course of corrective action. Possible actions include:

- A review of SDRs;
- Inspecting aircraft, facilities, or products to ensure they meet minimum standards;
- Investigating for possible regulatory noncompliance;
- Recommending procedural changes to the operator's manual(s); or
- Filing an Enforcement Investigative Report (EIR).

3-3433 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of the regulatory requirements of parts 121 and 135, as applicable.
- Familiarity with the operator's procedures manual.
- Successful completion of the Airworthiness Inspector Indoctrination course for General Aviation (GA) and air carrier inspections, or previous equivalent.

B. Coordination. This task may require coordination with other airworthiness ASIs.

3-3434 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Advisory Circular (AC) 20-109, Service Difficulty Program (General Aviation).
- Title 14 CFR §§ 121.703 and 121.705.
- Title 14 CFR § 135.417.
- Regulations Division—Legal Interpretations & Chief Counsel's Opinions.

B. Forms. None.

C. Job Aids. None.

3-3435 PROCEDURES.

A. Analyze the Content of the Report. Review the MIS.

1) Coordinate with the appropriate specialty for analysis.

2) Determine if any item on the MIS requires further action.

B. Conduct Research. To determine the course of action and the severity of the problem, accomplish the following, as necessary:

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1) Contact the operator for additional information to help establish the following:

- Were proper maintenance procedures followed?
- Have appropriate corrective actions been taken?

2) Review previous MISs to detect trends or irregularities that may indicate problem areas in maintenance procedures, operational procedures, or the operator's training.

3) Review previous inspection reports, correspondence, and other documents in the office files to determine if problem areas that relate to MISs have been identified.

4) Examine the operator's recent enforcement history to determine if there are any related violation actions.

C. Analyze Findings. Based on the information obtained, determine an appropriate course of action.

D. Debrief Operator. Discuss with the operator all significant items identified on the MIS. Discuss corrective actions and, if necessary, inform the operator that a letter will follow to confirm the items discussed.

3-3436 TASK OUTCOMES.

A. Complete the PTRS Record.

B. Complete the Task. Completion of the task may result in the following:

- A formal letter to the operator confirming the results of the analysis;
- A change in the operator's maintenance or manual procedures; or
- An EIR.

C. Document the Task. File the MIS in the operator's district office file according to office procedures.

3-3437 FUTURE ACTIVITIES. Followup inspections to ensure compliance, as required.

RESERVED. Paragraphs 3-3438 through 3-3440.

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VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 34 CHANGES TO AIR CARRIER CERTIFICATE OR OPERATING AUTHORITY

Section 3 Amendment, Surrender, Suspension, Revocation, and Replacement of Air Carrier, Operating, or Air Agency Certificates

3-3631 GENERAL. This section contains information, direction, and guidance for principal inspectors (PI)/Training Center Program Managers (TCPM) and other involved inspectors to use for accomplishing the amendment, surrender, suspension, revocation, and replacement of Air Carrier, Operating, or Air Agency Certificates.

NOTE: The term "operator" is used in this section to refer to the holder of an Air Carrier Certificate, Operating Certificate, or Air Agency Certificate.

3-3632 BACKGROUND.

A. Regulations. The basis for these various certificate actions is found in Title 49 of the United States Code (49 U.S.C.) § 44709 and in Title 14 of the Code of Federal Regulations (14 CFR) part 13, § 13.19; part 119, §§ 119.41 and 119.61(a); part 133, § 133.13; part 137, § 137.17; part 141, § 141.13; part 142, § 142.11; part 145, § 145.57; and part 147, § 147.7. These actions can proceed with a full agreement between the PI/TCPM and the operator, or they may be contested. The PI shall see Volume 14, Chapter 1, Section 1, Flight Standards Service Compliance Philosophy, and Volume 14, Chapter 1, Section 2, Flight Standards Service Compliance Action Decision Procedure, before any action described in this section is taken.

B. Transfer. A certificate issued under § 119.39 is not transferable and, unless sooner surrendered, suspended, or revoked, shall remain in effect indefinitely in accordance with § 119.61. However, when a person (as defined by 14 CFR part 1, § 1.1, which includes an individual and many types of organizations) holds a certificate, the person who owns or controls the organization may sell or transfer the organization to another person. Incident to such sale or transfer of the organization, the certificate becomes the property of the new owner.

C. Certificate Actions. Inspectors should have an understanding of the distinctions between the various certificate actions that can occur. A certificate is a document that contains the name of the operator, a broad statement of the operator's operating authority, and an effective date. An operator may not conduct operations without possession of a valid certificate.

D. Amendment of a Certificate. The amendment of a certificate is a change to the information on the face of the document, usually as the result of a name change or administrative change. Certificates rarely require an amendment because the details of operating authorizations are contained in the operations specifications (OpSpecs)/training specifications (TSpecs) or equivalent (i.e., authorizations).

E. Surrender of a Certificate. The surrender of a certificate occurs when an operator voluntarily gives up operating authority.

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F. Suspension of a Certificate. The suspension of a certificate is the temporary, involuntary removal of an operator's operating authority by the FAA using due process of law. Suspension usually results in the restoration, revocation, or surrender of the operator's operating authority.

G. Revocation of a Certificate. The revocation of a certificate is the permanent, involuntary removal of an operator's operating authority by the FAA using due process of law.

H. Replacement of a Certificate. The replacement of a certificate is the reissuance of a new certificate to an operator when the operator's original certificate has either been lost or destroyed.

3-3633 AMENDMENT OF A CERTIFICATE: OPERATOR-INITIATED AMENDMENT.

A. Name Change. A change of the certificate holder's legal name without a change of ownership requires a new certificate and updated OpSpecs under § 119.9, but may not require a new certificate number. To avoid administrative burdens and ensure consistency in historical records of an operator, PIs may permit a name change and change in ownership without issuing a new certificate number. However, PIs must ensure the certificate holder is not using the name change to circumvent initial certification requirements or conceal the past history of an operator. Air Carrier Certificates, Operating Certificates, and OpSpecs must accurately reflect the certificate holder's name.

B. Change in Ownership. When only the ownership of the organization to which the certificate is issued changes, PIs do not need to arrange for issuance of a new certificate number. Changes in ownership that also involve changes in economic authority, operating authority, required operating personnel, or changes in the principal base of operations may require additional certification. Volume 3, Chapter 34, Section 2 contains FAA policy governing major changes to air carrier operating authority. For information related to changes of ownership of repair stations, see Volume 2, Chapter 11, Section 2; and refer to § 145.57.

C. Notifications.

1) Aviation Data Systems Branch (AFS-620) must receive notification from PIs at 9-AMC-AFS620-Certinfo@faa.gov when either of the following circumstances occurs:

a) The name shown on the certificate changes, or

b) The PI determines a new certificate number should be issued.

2) OpSpecs, manuals, and FAA records will need to be amended where necessary to show any new information.

3) PIs should be aware that Department of Transportation (DOT) regulations, at 14 CFR part 215, require the certificate holder to submit information about changes in ownership and other changes to DOT.

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D. Changes in Ownership that are the Result of a Merger or Acquisition.

1) For air carriers operating under 14 CFR part 121, changes in ownership that are the result of a merger or acquisition of operational assets are governed by policy contained in Volume 3, Chapter 34, Section 1.

2) For air carriers operating under 14 CFR part 135:

a) Changes in ownership that are the result of a merger or acquisition of a company will require the same considerations if the conditions in Volume 3, Chapter 34, Section 1, subparagraph 3-3591A1) exist.

b) Absent the conditions listed in Volume 3, Chapter 34, Section 1, subparagraph 3-3591A1), and when neither major personnel changes nor changes in the capability or characteristics of an operation occur, the PI is not required to issue a new certificate number. However, the PI may elect to require a new certificate number if the PI determines safety in air commerce or the public interest require the amendment, pursuant to § 44709.

E. Verification of U.S. Citizenship. When a change of ownership occurs, the PI must ensure the certificate holder meets the requirements of § 119.33(a)(1) and (b)(1).

F. Partial Change of Certificate Number. There may be rare cases where AFS-620 elects not to change the entire certificate number. Instead, AFS-620 may leave the designator element intact, but change the numeric and alpha suffix code (e.g., a change from certificate number TWRA118A to TWRA119B). With partial certificate number changes, PIs must still update the Operating Certificate or the Air Carrier Certificate, and the appropriate certificate holder documents, to reflect the correct numeric and alpha suffix code. (See Volume 2, Chapter 1, Section 3 for more information on certificate number construction.)

G. Prepare the New Certificate. When the PI is ready to prepare the new certificate, contact AFS-620 via the email listed in subparagraph 3-3633C1) and AFS-620 will issue any new certificate number and update the database.

H. DOT Notification. Any operator required to have economic authority from the DOT must notify the DOT when there is a change in name or ownership. An air taxi operator must submit an amended Office of the Secretary of Transportation (OST) Form 4507, Air Taxi Operator Registration and Amendments Under Part 298 of the Regulations of the Department of Transportation, and file a new OST Form 6410, U.S. Air Carriers—Certificate of Insurance. These documents will be filed no later than 30 days after the change. The PI is not required to wait for DOT approval and may simultaneously issue a name change to the Operating Certificate and OpSpecs upon notification and verification of the DOT filing. (See Volume 2, Chapter 2, Section 2 for additional information relating to DOT economic authority.)

3-3634 REPLACEMENT OF A LOST OR DESTROYED CERTIFICATE. A lost or destroyed certificate may be replaced by the certificate-holding district office (CHDO) using the same information that was on the original certificate. The replacement certificate should have the word “Duplicate” annotated on the front of the certificate. A copy of the duplicate certificate should be retained in the CHDO’s files. In the case of a destroyed certificate, the operator must

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send any remains of the certificate to the PI with a written request that the certificate be replaced and a sworn statement (i.e., Affidavit of Loss) describing why the replacement is being requested. The operator, agent for service, or a court-appointed individual authorized to act for the operator must sign the request and statement.

3-3635 SURRENDER OF A CERTIFICATE. The FAA's regulations provide for the voluntary surrender of FAA-issued certificates for cancellation. Refer to, for example, 14 CFR part 61, § 61.27(a); part 63, § 63.15(c); part 65, § 65.15; § 119.61(a)(1); and § 145.55(a) and (b).

A. Voluntary Surrender. A PI/TCPM may request, but may not compel, operators to voluntarily surrender certificates. An operator may voluntarily surrender a certificate unless it is the subject of an enforcement investigation or enforcement action, as described in subparagraph 3-3635D). Refer to the current edition of FAA Order 2150.3, FAA Compliance and Enforcement Program, Chapter 5, paragraph 14(b), Surrender of FAA Certificate for Cancellation. To do so, the operator should send the certificate to the PI/TCPM with a written request that the certificate be canceled and a statement of why the certificate is being surrendered. The request must be signed by the operator, agent for service, or a court-appointed individual authorized to act for the operator.

B. Lost or Destroyed Certificates. This procedure also applies to certificates that have been lost or destroyed. Where the certificate has been lost or destroyed, the PI will obtain an Affidavit of Loss as described in paragraph 3-3634. The PI/TCPM will enter a brief statement of the circumstances surrounding the voluntary surrender of the certificate in the "Comments" section of the operator's enhanced Vital Information Database (eVID). A certificate that has been surrendered should be retained at the CHDO along with a copy of the operator's OpSpecs/TSpecs or equivalent (i.e., authorizations) and retained in accordance with FAA Order 1350.14, Records Management.

C. Reinstatement of Voluntarily Surrendered Certificate. A voluntarily surrendered certificate may not be reinstated. If the operator subsequently decides to reinstate operations, the operator must apply and qualify for a new certificate.

D. Surrendering an Operating Certificate in Lieu of an Enforcement Action. The PI/TCPM should be alert for indications that a certificate holder is attempting to avoid a certificate action through the voluntary surrender of a certificate, including whether the certificate holder is the subject of an enforcement investigation or enforcement action. Consequently, before determining whether to accept a certificate holder's voluntary surrender of a certificate, the PI/TCPM must review actions in the Enforcement Information System (EIS) and other databases showing investigative or enforcement activity. If the EIS or any other database reveals that the certificate holder is the subject of an enforcement investigation or enforcement action, the PI/TCPM must refuse the certificate holder's attempt to voluntarily surrender the certificate. If there is an ongoing investigation, it will continue, and enforcement action will be recommended if appropriate. Refer to Order 2150.3, chapter 5, paragraph 14, and appendix A for more information.

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3-3636 ADVERSE ACTIONS. In accordance with § 13.19(b), the FAA may find it necessary to amend, suspend, or revoke all or part of a certificate without the operator's concurrence. In general, the PI should initiate an adverse action of this nature after an unsuccessful attempt has been made to negotiate with the operator concerning the voluntary amendment or surrender of the certificate. When an adverse action is appropriate, the Regional Flight Standards Division Manager (RFSDM) and the Assistant Chief Counsel for Enforcement (AGC-300) will confer and decide whether an order should be issued for the amendment, suspension, or revocation of the operator's certificate. The PI must prepare the enforcement package in accordance with Volume 14 and Order 2150.3. The order to amend, suspend, or revoke a certificate should be a mutual decision between the PI, the RFSDM, and the Office of the Chief Counsel (AGC).

A. Emergency Actions. Where an emergency exists, the order that amends, suspends, or revokes the certificate may be made effective immediately.

B. Appeals. The operator may appeal an order amending, suspending, or revoking its certificate to the National Transportation Safety Board (NTSB). Should the operator elect to appeal a certificate action to the NTSB, the effective date of the order is stayed until the NTSB acts on the appeal, unless it is an emergency order.

3-3637 SUSPENSION OF A CERTIFICATE. To suspend a certificate, AGC will issue the operator an order of suspension. Information concerning the disposition of a suspended certificate can be found in Order 2150.3. Operators must forward suspended certificates to the address contained in the order suspending the certificate. When a certificate has been suspended, the operator's eVID file should be amended to reflect the suspended status.

3-3638 REVOCATION OF A CERTIFICATE. To revoke a certificate, AGC will issue the operator an order of revocation. Operators must forward revoked certificates to the address contained in the order revoking the certificate. Additionally, the operator's eVID file should be amended to show that the certificate has been revoked and should contain a statement of the reasons for the action in the "Comments" section. Should revocation be appropriate, see paragraph 3-3636.

3-3639 TRANSPORTATION SECURITY ADMINISTRATION (TSA) NOTIFICATION. Any time an operator's certificate is amended, suspended, surrendered, or revoked, the CHDO will notify their TSA principal security inspector (PSI) at Charters-AirCargo-S@tsa.dhs.gov. Indicate the operator's name, certificate number, type of change in the certificate, and the effective date of the change. It is important to make this notification in order for the PSI to secure all security-sensitive documents from the operator.

RESERVED. Paragraphs 3-3640 through 3-3655.

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VOLUME 4 AIRCRAFT EQUIPMENT AND OPERATIONAL AUTHORIZATIONS

CHAPTER 5 AIR AMBULANCE OPERATIONS

Section 1 Background and Definitions

4-916 INTRODUCTION. This chapter contains background information on air ambulance operations. It also contains information, direction, and guidance to be used by inspectors, including principal operations inspectors (POI), when determining if an operator is eligible to hold out, advertise for, and conduct air ambulance operations in accordance with Title 14 of the Code of Federal Regulations (14 CFR) part 119, § 119.5(k); as well as how to evaluate a helicopter air ambulance (HAA) operator's compliance with 14 CFR part 135 subpart L requirements. This chapter provides detailed guidance for the evaluation of an operator's air ambulance procedures, air-ambulance-specific sections of their General Operations Manual (GOM), and the unique requirements an operator must meet prior to being issued Operations Specification (OpSpec) A021, Air Ambulance Operations—Helicopter; or OpSpec A024, Air Ambulance Operations—Airplane. This chapter contains operational procedures for both airplane and HAA operations. Specific HAA training requirements are contained in several sections of Volume 3, Chapter 19. A sequential breakdown of this chapter follows:

A. Section 1. Contains general background information, such as air ambulance OpSpecs, definitions of terms, and references to source documents.

B. Section 2. Contains guidance for inspectors evaluating an operator's initial request to be certificated as a part 135 HAA operator or for existing operators to be issued OpSpec A021 or A024 for operations under part 135 air ambulance service.

C. Section 3. Contains guidance for the evaluation of subject-matter-specific operational procedures pertaining to part 135 airplane or HAA services.

D. Section 4. Reserved. (Previously this section contained training information, which is now contained in Volume 3, Chapter 19.)

E. Section 5. Contains guidance to be used by inspectors when evaluating a part 135 HAA operator's risk analysis program.

4-917 BACKGROUND.

A. Associations. The aviation and medical professions have combined various aspects of their industry to form a sophisticated system to provide life-sustaining care for ill or injured people. Air ambulance operators have met the public need and demand for such services by equipping aircraft specifically for this purpose. The Flight Standards Service (AFS), in consultation with air ambulance operators, medical care providers, and other industry organizations, created specific OpSpec paragraphs to establish regulatory compliance standards designed to enhance safety in air ambulance operations. Most of these standards were later codified under part 135 subpart L.

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B. Emergency Operations. Situations will arise where a true medical emergency exists and no air carrier with an air ambulance authorization is reasonably available. An air carrier without an air ambulance authorization may conduct an air ambulance operation to save a human life. That operator must file a report with the local Flight Standards District Office (FSDO) within 10 days as required by part 135, § 135.19. The FSDO must investigate the circumstances and determine if an actual emergency appeared to exist at the time of the operation (see Volume 14, Chapter 1 of this order). Repeated air ambulance operations by an operator without an air ambulance authorization should be determined as holding out to the public to conduct an operation which is not authorized by their OpSpecs. (See paragraph 4-921 for additional information.)

C. OpSpecs. Specific air ambulance OpSpecs (A021 for HAA and A024 for airplane air ambulance operations) are available to authorize such flights. Operators who wish to provide air ambulance services must implement appropriate service-specific policies, procedures, training, and in some cases, install equipment to facilitate safe air ambulance operations in accordance with regulations. These requirements are further discussed in this section and in the following sections of this chapter.

4-918 DEFINITIONS/ABBREVIATIONS. The following terms are defined according to their use in this handbook.

A. Accident/Incident Plan/Post-Accident/Incident Plan (AIP/PAIP). Includes emergency response procedures that should be used as a basis for training or for reference in the event of a mishap or other emergency.

B. Advisory Circular (AC).

C. Aeromedical Director. A licensed medical professional associated with an HAA operation, ultimately responsible for patient care during air transport. The Aeromedical Director has no operational control authority, and may not exert any influence over decisionmaking related to the safe conduct of flights.

D. Air Ambulance. An aircraft used in air ambulance operations. The aircraft need not be used exclusively as an air ambulance aircraft, and the equipment need not be permanently installed.

E. Air Ambulance Operation. A flight or sequence of flights for the purpose of medical transportation, conducted by a part 135 certificate holder authorized by the Administrator to conduct air ambulance operations. An air ambulance operation includes, but is not limited to:

1) Flights conducted to position the air ambulance at a site where medical personnel, a patient, donor organ, or human tissue will be picked up.

2) Flights conducted to reposition an air ambulance after completing transportation of the medical personnel, patient, donor organ, or human tissue transport.

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3) Flights initiated for the transport of a patient, donor organ, or human tissue that are terminated due to weather or other reasons. (Refer to § 135.601.)

F. Air Medical Resource Management (AMRM). A dynamic process including pilots, medical personnel (not limited to those participating in HAA flights), maintenance technicians, operational support personnel and management staff that optimizes human–machine interface and related interpersonal issues, with maximum focus on communication skills and team building curricula. (Refer to the current edition of AC 00-64, Air Medical Resource Management.)

G. Autorotational Distance. The distance a rotorcraft can travel in autorotation as described by its manufacturer in its approved Rotorcraft Flight Manual (RFM). (Refer to § 135.168.)

H. Certificate-Holding District Office (CHDO). The Federal Aviation Administration (FAA) AFS CHDO with responsibility for management of an air carrier's certificate, charged with the overall inspection and surveillance of that certificate holder's operations. (Refer to 14 CFR part 1, § 1.2.)

I. Code of Federal Regulations (CFR).

J. Communications Specialist (CS). An individual trained and qualified by the operator to receive and coordinate one or more of a range of activities, including, but not limited to, receiving flight requests for HAA operations; communications with medical, first response, and other HAA organizations; communications with HAA crews; and flight locating. The employment and training of CSs has been identified as an HAA industry best practice.

K. Crew Resource Management (CRM). The use of all the available resources, information, equipment, and people to achieve safe and efficient flight operations; approved CRM training is required for flightcrews in accordance with § 135.330. (Refer also to § 135.330 and the current edition of AC 120-51, Crew Resource Management Training, for more information.)

L. Datalink. A general term referring to a variety of technologies used to transmit and receive wireless electronic data between on-aircraft systems and off-aircraft systems.

M. Emergency Medical Service (EMS). The term "emergency medical service" has been replaced with the term "air ambulance operations."

N. Extended Overwater Operation. Per § 1.1, with respect to helicopters, an operation over water at a horizontal distance of more than 50 nautical miles (NM) from the nearest shoreline and more than 50 NM from the nearest offshore heliport structure.

O. Flight Following. Active contact with an aircraft throughout a flight (including time on the ground), either through voice radio contact with the pilot or through automated flight following systems. Considered a best practice in the HAA industry.

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P. Flight Locating. The certificate holder is required by regulation to use flight locating procedures (refer to § 135.79) unless an FAA flight plan is filed and activated. Flight locating by HAA operations, even where it is not required by regulation, is recommended as an HAA industry best practice.

Q. Flight Standards District Office (FSDO).

R. General Operations Manual (GOM). Required to be compiled to include, at minimum, sections mandated by regulation, including visual flight rules (VFR) flight planning procedures (§ 135.615) and an FAA-approved preflight risk analysis (§ 135.617). A GOM requires acceptance by the FAA to be valid.

S. Geographic Information Systems (GIS). A collection of computer hardware, software, and geographic data designed to efficiently capture, store, manage, map, analyze, and display geographically-referenced information.

T. Helicopter Air Ambulance (HAA). A helicopter, defined for the purposes of § 135.619, that is identified as being capable of air ambulance operations in the operator's OpSpecs. It need not be used exclusively as an HAA. HAA-specific equipment need not be permanently installed.

U. Helicopter Emergency Medical Service (HEMS). Obsolete term. The FAA and industry are moving to the term HAA for enhanced accuracy. HAA flights do not constitute an emergency flight. Replacement of the term HEMS with HAA will take place over the next several years as each relevant document is updated. The term HAA will be used exclusively throughout this document.

V. Helicopter Landing Area (also Heliport or Landing Zone (LZ)). An area of land or water or a structure used or intended to be used for the landing and takeoff of helicopters. OpSpec A021 grants latitude to a helicopter operator for landing site selection as well as the authority to land on appropriate sites during both day and night in HAA operations. (Refer to § 1.1; the current edition of AC 150/5390-2, Heliport Design; and OpSpec A021.)

W. Helicopter Night Vision Goggle Operations (HNVGO). That portion of a flight that occurs during the time period, from 1 hour after sunset to 1 hour before sunrise, where the pilot maintains visual surface reference using night vision goggles (NVG) in an aircraft that is approved for such operations. (Refer to 14 CFR part 61, § 61.1.)

X. Helicopter Terrain Awareness and Warning System (HTAWS). A terrain and obstacle database-driven awareness and warning system configured specifically for a helicopter's operating environment. This system correlates ship's position, altitude, direction of flight, and speed with digital obstacle and terrain maps. (Refer to § 135.605.)

Y. Inadvertent Instrument Meteorological Conditions (IIMC). An emergency condition when an aircraft inadvertently transitions from visual meteorological conditions (VMC) into instrument meteorological conditions (IMC).

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Z. Instrument Flight Rules (IFR). Operations when weather conditions are below the minimum for flight under VFR.

AA. Instrument Meteorological Conditions (IMC). Meteorological conditions expressed in terms of visibility, distance from clouds and ceiling that are less than that specified for VMC, requiring flight to be conducted under IFR.

BB. Landing Zone (LZ). See subparagraph 4-918V, Helicopter Landing Area.

CC. Local Flying Area (LFA). A geographic area of not more than 50 NM in any direction from a location designated by an HAA operator and approved by the FAA in OpSpec A021. (Refer to § 135.609(b)(1).)

DD. Medical Personnel. Medical personnel are individuals with medical training, carried aboard air ambulance flights or HAA operations, including: flight nurses, paramedics, respiratory specialists, neonatal specialists, and other aviation-trained specialists. (Refer to § 135.601(b)(2).)

EE. Mountainous. Designated mountainous areas as listed in 14 CFR part 95. OpSpec A021 provides different minimums for mountainous and non-mountainous areas. To ensure commonality with IFR requirements, mountainous areas are identified as those designated as mountainous areas in part 95. (Refer to § 135.601.)

FF. Night Vision Goggles (NVG). An NVG is a Night Vision Imaging System (NVIS) (q.v.) appliance worn by crewmembers that enhances the ability to maintain visual surface reference under low-light flight conditions.

GG. Night Vision Imaging System (NVIS). An approved light amplification appliance enhancing visual sensitivity in low light conditions, combined with specialized lighting systems that are type certificate (TC)-approved for the type of helicopter in which it is installed and are compatible with NVGs being used in that helicopter.

HH. Non-Mountainous. Areas other than mountainous areas as listed in part 95. (Refer to § 135.601.)

II. Operations Control Center (OCC). An OCC is a dedicated facility staffed by trained HAA Operational Control Specialist(s) (OCS) (see subparagraph 4-918JJ). The OCC is described in § 135.619. OCC review includes a wide range of safety-related items detailed in § 135.619(a). (Refer to the current edition of AC 120-96, Integration of Operations Control Centers into Helicopter Emergency Medical Services Operations.)

NOTE: OCCs are required for certificate holders authorized to conduct HAA operations with 10 or more HAAs assigned to their OpSpecs and are strongly encouraged for all operators. (Refer to § 135.619.)

JJ. Operations Control Specialist (OCS). An individual within the OCC who provides operational support for the certificate holder's air ambulance operations and is both

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initially and recurrently trained as specified in § 135.619(d) and (f). An OCS interfaces with the HAA pilot(s) prior to each flight request acceptance.

KK. Operations Specification (OpSpec). Issued by the FAA to specify the commercial air operations it has authorized the certificate holder to carry out. OpSpec A021 authorizes HAA service. Before OpSpec A021 can be issued, the operator must meet the regulatory requirements of part 135 subpart L. OpSpec A024 authorizes airplane air ambulance service. (Refer to AC 120-96 and the current edition of AC 135-14, Helicopter Air Ambulance Operations.)

LL. Overwater Flight. Operation of a rotorcraft beyond autorotational distance from the shoreline. (See subparagraph 4-918XX, Shoreline.)

MM. Patient. A person under medical treatment. For the purpose of this definition, though human transplant organs or tissue are not patients, these are explicitly included under HAA operations, regulations, and practices. They are treated in the same manner as people under medical treatment.

NN. Pilot in Command (PIC). The PIC of an aircraft is directly responsible for its safe and legal operation.

OO. Principal Avionics Inspector (PAI). The PAI at the CHDO specifically responsible for aviation safety inspection and oversight of an HAA operator.

PP. Principal Maintenance Inspector (PMI). The PMI at the CHDO specifically responsible for aviation safety inspection and oversight of an HAA operator.

QQ. Principal Operations Inspector (POI). The POI at the CHDO specifically responsible for aviation safety inspection and oversight of an HAA operator.

RR. Regional Flight Standards Division (RFSD).

SS. Residual Risk. Residual risk is the safety risk that exists after all controls have been implemented or exhausted and verified (to ensure that the risk acceptance is in accordance with a pre-existing documented risk analysis procedure).

TT. Response Scene. Unimproved ad hoc LZ sites and other offsite locations where HAA flight landings are authorized under the authority of OpSpec A021.

UU. Risk Analysis. A formal methodology for guiding HAA decisionmaking. Its FAA-approved procedures, principles, and policies are documented and are the subject of training by HAA operators. They include multiple people with defined roles that have been documented and are the subject of training. As risks grow, approval to conduct a flight must be obtained from higher levels of management (refer to §§ 135.615 and 135.617(a)(5)). Process documentation should identify risk factors the HAA operator may consider as part of the regulatory-required risk analysis. The operator should assign to each risk factor an appropriate numerical value reflecting both the likelihood of occurrence and severity of outcome. Section 135.617 requires HAA operators have a documented procedure for elevating the

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management level required for flight approval when risk analysis exceeds predetermined levels of quantified risk.

VV. Safety Management System (SMS). An SMS is a formal, top-down approach to managing safety risk. It is a system to manage safety, including the necessary organizational structures, accountabilities, policies, and procedures. For the HAA operator, implementing an SMS can provide useful tools for complying with the requirements of § 135.617. Additional information and resources on SMS can be found in the current edition of AC 120-92, Safety Management Systems for Aviation Service Providers; and AC 135-14, Chapter 8 and Appendix B.

WW. Second in Command (SIC).

XX. Shoreline. Land adjacent to the water of an ocean, sea, lake, pond, river, or tidal basin that is above the high-water mark at which a rotorcraft could be landed safely. This does not include land areas unsuitable for landing, such as vertical cliffs or land intermittently under water. (Refer to § 135.168.)

YY. Standard Operating Procedures (SOP). An established or prescribed method to be followed routinely for the performance of a designated operation or in a designated situation and is used to guide training to meet such contingencies.

ZZ. Suitable Offshore Heliport Structure. A heliport structure that can support the size and weight of the rotorcraft being operated where a safe landing can be made.

AAA. Supplemental Type Certificate (STC). A TC issued when an applicant has received approval to modify an aircraft from its original design.

BBB. Unimproved Landing Zone (LZ)/Area. A scene where an air ambulance operation is conducted that may involve nonroutine, hazardous conditions.

CCC. Visual Flight Rules (VFR).

4-919 RELATED SOURCE MATERIAL. Current editions of the following documents are applicable to air ambulance operations.

A. ACs:

- AC 00-64, Air Medical Resource Management.
- AC 27-1, Certification of Normal Category Rotorcraft.
- AC 27-1 MG 6, Miscellaneous Guidance (MG) for Emergency Medical Service (EMS) Systems Installations.
- AC 29-2, Certification of Transport Category Rotorcraft.
- AC 91-21.1, Use of Portable Electronic Devices Aboard Aircraft.
- AC 91-32, Safety In and Around Helicopters.
- AC 120-27, Aircraft Weight and Balance Control.
- AC 120-49, Certification of Air Carriers.

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- AC 120-51, Crew Resource Management Training.
- AC 120-92, Safety Management Systems (SMS).
- AC 120-96, Integration of Operations Control Centers into Helicopter Emergency Medical Services Operations.
- AC 135-5, Maintenance Program Approval for Carry-On Oxygen Equipment for Medical Purposes.
- AC 150/5390-2, Heliport Design.
- AC 150/5230-4, Aircraft Fuel Storage Handling Training and Dispensing on Airports.

B. Handbooks, Manuals, and Pamphlets:

- FAA Order 8040.4, Safety Risk Management Policy.
- FAA-H-8083-21, Rotorcraft Flying Handbook.
- FAA-H-8083-16, Instrument Procedures Handbook.
- Aeronautical Information Manual (AIM).
- DOT/FAA/PM-86/45, Aeronautical Decision Making for Helicopter Pilots.
- DOT/FAA/DS-88/7, Risk Management for Air Ambulance Helicopter Operators.
- FAA FAASTeam Library, Flying in Flat Light and White Out Conditions.
- National EMS Pilots Association (NEMSPA), Preparing a Landing Zone. NEMSPA's address is P.O. Box 2128, Layton, UT 84041-9128, telephone (877) 668-0430.

C. Other:

1) Helicopter Association International (HAI). HAI is located at 1920 Ballenger Avenue, Alexandria, VA 22314-2898, telephone (703) 683-4646. Check their Web site for other documents and links to resources, including their Fly Neighborly Guide.

2) The National Fire Protection Association (NFPA) is located at 1 Batterymarch Park, Quincy, MA 02169-7471, telephone (617) 770-3000. They have many publications about fire protection; the 400 series may be the most helpful. For example, the current edition of NFPA 418, Standard for Heliports, has fire standards for heliports.

3) Air Ambulance Guidelines published by both the U.S. Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA), and the American Medical Association (AMA) Commission on Emergency Medical Services.

4) The National Association of Airmedical Communications Specialists' (NAACS) address is P.O. Box 19240, Topeka, KS 66619, telephone (877) 396-2227. Check their Web site for links to resources, including training courses.

5) Special Airworthiness Information Bulletin (SAIB) SW-10-43, Non-Aviation Transmitters (includes, for example, 800 megahertz (MHz) radios used to communicate with hospitals).

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6) Policy Letter (PL) ASW-2001-01, Certification Guidelines for Compliance to the Requirements for Electromagnetic Compatibility (EMC) Testing.

7) DOT/FAA/AR-99/50, High-Intensity Radiated Fields (HIRF) Risk Analysis.

8) FAA Technical Standard Order (TSO)-C194, Helicopter Terrain Awareness and Warning System (HTAWS).

9) International Civil Aviation Organization (ICAO) Doc 9977 AN/489, Manual on Civil Aviation Jet Fuel Supply.

10) RTCA, Inc., DO-160, Environmental Conditions and Test Procedures for Airborne Equipment.

11) RTCA, Inc., DO-178B, Software Considerations in Airborne Systems and Equipment Certification.

12) RTCA, Inc., DO-254, Design Assurance Guidance for Airborne Electronic Hardware.

13) RTCA, Inc., DO-309, Minimum Operational Performance Standards (MOPS) for Helicopter Terrain Awareness and Warning System (HTAWS) Airborne Equipment.

14) OpSpecs:

- A005, Exemptions and Deviations.
- A008, Operational Control.
- A010, Aviation Weather Information.
- A021, Air Ambulance Operations—Helicopter.
- A024, Air Ambulance Operations—Airplane.
- A050, Helicopter Night Vision Goggle Operations (HNVGO).
- A061, Use of Electronic Flight Bag.
- A096, Actual Passenger and Baggage Weight Program for All Aircraft.
- A097, Small Cabin Aircraft Passenger and Baggage Weight Program.
- D085, Aircraft Listing.

4-920 OVERVIEW OF AIR AMBULANCE SERVICES. This paragraph provides a general overview of air ambulance operations. Details are contained in the appropriate section of this chapter.

A. Regulatory Requirements. An air ambulance operator must comply with all requirements of the 14 CFR part under which it is certified. Air ambulance operators are not exempt from any requirement of 14 CFR. To ensure industry standardization and a clear understanding between the FAA and air ambulance operators, OpSpecs A021 (helicopter) and A024 (fixed wing) identify specific means by which air ambulance operators can comply with 14 CFR. Some of these rules are as follows:

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1) Management Qualifications. Part 135 operators are required to have their management personnel identified per § 119.69. The pertinent parts of this section state (emphasis added):

a) Each certificate holder must have sufficient qualified management and technical personnel to ensure the safety of its operations. Except for a certificate holder using only one pilot in its operations, the certificate holder must have qualified personnel serving in the following (or equivalent) positions:

- Director of Operations (DO),
- Chief pilot, and
- Director of Maintenance (DOM).

b) The individuals in the positions required or approved under subparagraph 4-920A1)a) of this section and anyone in a position to exercise control over operations conducted under the operating certificate must:

1. Be qualified through training, experience and expertise;

2. To the extent required by their responsibilities, *have a full understanding* of the following material with respect to the certificate holder's operation:

- *Aviation safety standards and safe operating practices;*
- Title 14 CFR Chapter I (Federal Aviation Regulations);
- The certificate holder's OpSpecs;
- All appropriate maintenance and airworthiness requirements of this chapter (e.g., 14 CFR parts 1, 21, 23, 25, 43, 45, 47, 65, 91, and 135); and
- The contents of the manual system required by § 135.21.

3. Discharge their duties to meet applicable legal requirements and to maintain safe operations.

2) Certification Under a 14 CFR Part. Part 119 specifies that the selection of the particular 14 CFR part used to certify an operator is to be based on the type and size of aircraft that the certificate holder operates. An air ambulance operator must hold either a 14 CFR part 121 or part 135 air carrier certificate and must then comply with all provisions of the specific part under which the operator is certified. The carriage of a person or persons requiring medical personnel and/or medical equipment on a scheduled air carrier, operating under parts 121 or 135, does not constitute air ambulance operations. However, a scheduled air carrier transporting a person or persons requiring medical personnel and/or equipment on an unscheduled flight (charter) is engaged in air ambulance operations. All HAA operations must be conducted under part 135, and specifically must comply with part 135 subpart L in addition to general part 135 regulations.

3) Certification Under Part 121. Most air ambulance operations are conducted under part 135. The information, direction, and guidance contained in this chapter applies to

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operations under part 135. If a part 121 operator requests air ambulance OpSpecs to apply to an airplane to be operated under part 121, the POI receiving that request should contact the Air Transportation Division (AFS-200) through the applicable RFSD for direction and guidance.

B. Advertising. According to § 119.5(k), an operator may not advertise or conduct operations not authorized by the operator's operating certificate and OpSpecs. An operator without an air ambulance authorization is explicitly prohibited, in OpSpec A004, Summary of Special Authorizations and Limitations, from conducting air ambulance operations.

C. OpSpec Paragraphs. All operators are initially prohibited by OpSpec A004 from conducting air ambulance operations. Those who desire to advertise and/or conduct air ambulance operations must have this prohibition removed through the issuance of the appropriate air ambulance OpSpecs. Operators holding part 135 OpSpecs but without OpSpec A021 or A024 may transport medical personnel as passengers accompanying a sick or injured person, but must meet the following requirements:

1) The operator may not advertise air ambulance or in-flight patient care services.

2) Any in-flight patient care equipment and medical personnel that accompany the passenger must be provided solely for the patient's comfort. If any medical care provider has determined that medical personnel are required for patient safety and/or life support, the flight is an air ambulance operation.

NOTE: When a life-threatening situation exists, the PIC may exercise the PIC's emergency authority in accordance with 14 CFR part 91, § 91.3; part 121, § 121.557; or § 135.19 to conduct air ambulance operations. A PIC taking such action must subsequently report that action to the appropriate FSDO within 10 days. The inspector investigating such a report should first determine whether information available to the operator and PIC at the time the flight began indicated that a life-threatening emergency existed. Then the inspector should determine whether a suitably equipped air ambulance was not reasonably available within the time acceptable to the requesting medical care provider.

3) OpSpec A021 HAA operations are more complex and are regulated to a much greater degree (part 135 subpart L) than general part 135 helicopter operations. (Refer to AC 135-14 for the requirements for HAA operations.)

4) OpSpec A024 airplane air ambulance operations do not differ significantly from other types of airplane air carrier operations. OpSpec A024 specifies operational requirements and grants the operator authorization for airplane air ambulance service.

4-921 FAA POLICY REGARDING COMPENSATION OR HIRE CONSIDERATIONS FOR CHARITABLE FLIGHTS OR LIFE FLIGHTS. Various organizations and pilots are conducting flights that are characterized as "volunteer," "charity," or "humanitarian." These flights are referred to by numerous generic names, including "lifeline flights," "life flights," "mercy flights," and "angel flights." These types of flights will be referred to as "life flights" in this section.

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A. Purposes for Life Flights. The types of organizations and pilots involved with or conducting life flights vary greatly. The most common purpose of life flights is to transport ill or injured persons who cannot financially afford commercial transport to appropriate medical treatment facilities, or to transport blood or human organs. Other "compassionate flights" include transporting a child to visit with a dying relative or transporting a dying patient to return to their city of birth.

B. FAA Policy. The FAA's policy supports "truly humanitarian efforts" to provide life flights to needy persons, including "compassionate flights." This also includes flights involving the transfer of blood and human organs. Since Congress has specifically provided for the tax deductibility of some costs of charitable acts, the FAA will not treat charitable deductions of such costs, standing alone, as constituting "compensation or hire" as defined by § 61.113 or part 135. Inspectors should not treat the tax deductibility of costs as constituting "compensation or hire" when the flights are conducted for humanitarian purposes.

4-922 OVERVIEW OF HAA SERVICES. HAA operations have complex requirements not applicable to airplane air ambulance operations. This paragraph provides a general overview of some of those requirements. AC 135-14 provides more extensive introductory material to HAA operations and their regulation.

A. OpSpec A021 Authorizations. A continuing trend of accidents during aeromedical operations resulted in the regulations now embodied in part 135 subpart L. Regulations include weather limitations for VFR flight, improvements in IFR operating limitations, added equipage requirements, pilot instrument qualifications and demonstrations, the implementation of VFR planning and risk assessment procedures, medical personnel safety briefings and training, and, for operations involving 10 or more HAA-designated helicopters, OCCs staffed by trained OCSs. These regulations must be met prior to issuance of OpSpec A021 (see Volume 3, Chapter 1, Section 1 for additional background information on OpSpecs). This OpSpec authorizes HAA service for hospital-to-hospital patient transfer operations, scene response operations, and other offsite ad hoc operations. This OpSpec grants latitude to an HAA operator for the following:

1) Unimproved Landing Sites. Selection and use.

2) Higher Minimums. HAA operations are subject to higher ceiling and visibility minimums in uncontrolled airspace than those that are required for conventional part 135 operations.

3) Night Landings. Night landings at unimproved sites are permitted with adequate lighting, consistent with NVIS if authorized and used, for the pilot to identify the landing site and surrounding hazards.

NOTE: "Adequate" lighting is lighting that allows a helicopter pilot to conduct a safe approach and landing during conditions of darkness while avoiding terrain and obstacles. The source of this lighting may be on the helicopter or on the surface and includes the possibility of automobile lights being used to illuminate the landing site. Pyrotechnic road hazard flares are not recommended for marking the touchdown area.

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B. LFA. If an operator chooses to designate LFAs (LFAs are not required), it must establish and document a procedure for the development of LFAs. Pilots authorized by an operator to use reduced ceiling and visibility minimums must periodically demonstrate their familiarity with the features of the LFA. Details are contained in AC 135-14 and Volume 4, Chapter 5, Section 3, paragraph 4-947. Each LFA must be listed in the operator's OpSpec A021, Table 1.

C. OCC. After April 22, 2016, if the operator is required by regulation to have and maintain an OCC, the requirements of § 135.619 must be met before OpSpec A021 may be issued. When an OCC is not required but an operator chooses to voluntarily implement similar capabilities or functions, the operator's applicable policies and procedures (and details of training in them) must be documented. This documentation must be accepted by the POI to be effective.

4-923 IFR AND VFR REQUIREMENTS. Operators of HAAs must comply with the following requirements for IFR and VFR.

A. IFR Operations. After April 22, 2017, § 135.603 requires that no certificate holder may use, nor may any person serve as a PIC of an HAA flight, unless that person meets the requirements of § 135.243 and holds a helicopter instrument rating or an Airline Transport Pilot Certificate (ATPC) with a category and class rating for the aircraft that is not limited to VFR.

B. Evaluation. POIs of HAA operators conducting IFR operations should carefully evaluate the operator's procedures, training and qualification program, and the operating environment before granting the operator the authority to conduct single-pilot IFR operations with an autopilot (refer to §§ 135.611 and 135.613). Such evaluation applies especially with respect to point in space (PinS) approaches, IMC-to-visual transitions following a PinS approach, and visual-to-IFR transitions between the takeoff point and the initial departure fix before granting the operator the authority to conduct single-pilot IFR operations with an autopilot. (Refer to §§ 135.611 and 135.613.)

C. VFR Operations. When conducting VFR flight, the operator must comply with the weather minimums specified in § 135.609 and as authorized by OpSpec A021. Operator requests for lower-than-standard VFR minimums must be coordinated with AFS-200 through the appropriate RFSD.

RESERVED. Paragraphs 4-924 through 4-930.

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VOLUME 4 AIRCRAFT EQUIPMENT AND OPERATIONAL AUTHORIZATIONS

CHAPTER 9 SELECTED FIELD APPROVALS

Section 2 Reserved

RESERVED. Paragraphs 4-1211 through 4-1230.

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VOLUME 4 AIRCRAFT EQUIPMENT AND OPERATIONAL AUTHORIZATIONS

CHAPTER 14 GENERAL OPERATING AND FLIGHT RULES—MAINTENANCE ISSUES

Section 4 Reserved

RESERVED. Paragraphs 4-1426 through 4-1450.

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VOLUME 6 SURVEILLANCE

CHAPTER 1 PART 91 INSPECTIONS

Section 4 Conduct a Part 91 Ramp Inspection

6-87 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Operations: 1661.

B. Maintenance: 3627.

C. Avionics: 5627.

6-88 OBJECTIVE. The objective of this task is to determine that an airman, operator, and/or aircraft is in continuing compliance with Title 14 of the Code of Federal Regulations (14 CFR). Completion of this task results in an indication in district office files and the national PTRS of either a satisfactory or an unsatisfactory inspection.

6-89 GENERAL. Title 14 CFR part 91 ramp inspections are numerous; however, it is important that the aviation safety inspector (ASI) become familiar with the aircraft he or she is inspecting. Ramp inspections involving other 14 CFR parts are available in the appropriate related task heading. This section covers ramp inspections for part 91 operators only.

NOTE: Airworthiness and Operations inspectors conduct ramp inspections on airmen and aircraft operating under various 14 CFR parts. The information provided may be applicable to either discipline, depending on the conditions observed by the inspector and the 14 CFR part under which the aircraft is operated.

A. Definitions.

1) Operator. For the purposes of this section, an operator may be an owner, pilot, executive/corporate operator, etc.

2) Ramp Inspection. A ramp inspection is defined as surveillance of an airman, operator, air agency, or aircraft, which may include conducting maintenance record inspections (PTRS code 3694/5694) sufficient to show compliance with 14 CFR during actual operations at an airport or heliport.

B. Inspector Conduct. The inspector must always have his or her Federal Aviation Administration (FAA) credentials available, since an airman or operator may or may not know an inspector.

NOTE: For special considerations concerning surveillance at fly-ins, airshows, and other gatherings of General Aviation (GA) aircraft and airmen, see Volume 6, Chapter 11, Section 10, Surveillance of an Aviation Event,

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subparagraphs 6 2373A1) through 5). The inspector during a ramp inspection at a glider race or similar aviation event (where a waiver or authorization is not required) should not interrupt or distract a pilot during his or her pre-race routine within 1 hour of his or her race unless there is a safety-related issue. Should the inspector need to address an issue, he or she will do it as professionally as possible.

1) An inspector must not open or board any aircraft without the knowledge and consent of the crew or owner/operator. Some operators may prefer to have a company representative present to answer questions.

2) If the surveillance will delay a flight, the inspector should use prudent judgment whether or not to continue an inspection that may affect an operator's busy schedule.

3) The inspector should also bear in mind that he or she may not be able to complete all items on every ramp inspection, but the operator should provide the inspector with enough information that he or she is confident that the aircraft is in compliance with the regulations.

C. Common Reasons for a Ramp Inspection. Ramp inspections may result when the inspector:

1) Observes an unsafe operation in the traffic pattern or in the ramp.

2) Receives notification from air traffic control (ATC) of an unsafe operation.

3) Observes obvious discrepancies that may affect the airworthiness of the aircraft.

4) Conducts routine surveillance activities.

5) Receives a task from the current edition of FAA Order 1800.56, National Flight Standards Work Program Guidelines.

D. Ramp Inspections Planned for a Specific Operator. When an ASI plans an inspection for a specific operator, the inspector should review the office files. Some of the reasons the ASI might plan a ramp inspection include:

- Recurring complaints.
- Suspected violations of 14 CFR.
- A special emphasis program required by the Regional Office (RO) or headquarters (HQ).

E. Title 14 CFR Parts 91K, 121, 125, 129 (§ 129.14), 133, 135, and 137. Procedures and details for these 14 CFR parts appear in their appropriate chapter of this volume.

F. Additional Background. When conducting a ramp inspection of a part 91 executive/corporate operator or a part 125 deviation holder, see Volume 6, Chapter 1, Section 1, Inspect an Executive/Corporate Operator.

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6-90 RAMP INSPECTION JOB AIDS. The Part 91 Ramp Inspection Job Aid (Figure 6-5) is a job aid provided for the inspector's use in accomplishing this task. He or she uses this job aid when conducting a ramp inspection of a single pilot, a flight instructor, an air agency, or other, less complex ramp inspections. You may also refer to Job Task Analyses (JTA), GA JTA 2.2.1 (Operations) and 2.2.4 (Airworthiness).

6-91 AIRWORTHINESS COORDINATION. Although it is advisable to accomplish a ramp inspection with another inspector, inspectors may perform ramp inspections individually, without the presence of both an Airworthiness and Operations inspector. If either an Airworthiness or Operations inspector is not available during the inspection, and the inspector performing the ramp inspection discovers airworthiness discrepancies, he or she must coordinate with the appropriate inspector at the district office to determine the disposition of the discrepancy. He or she should accomplish this before completing the inspection.

6-92 DISCREPANCIES FOUND DURING INSPECTION. The inspection should continue unless the inspector discovers a discrepancy that would affect the safety of flight or dispatch of the aircraft that may result in a violation of 14 CFR. In those cases, the inspector should take action appropriate to the discrepancy. He or she must note all discrepancies on the job aid and discuss them with the owner/operator. The inspector may explain how to correct discrepancies found during the inspection, but the inspector should keep in mind that it is the operator's responsibility to ensure that items are in compliance with 14 CFR.

A. Responsibility for Airworthiness. The airworthiness of the aircraft is the responsibility of the pilot (refer to part 91, § 91.7) and monitored by Airworthiness inspectors. However, if an inspector finds an obviously unairworthy aircraft, it is the responsibility of the inspector to see that an FAA Form 8620-1, Aircraft Condition Notice (Figure 6-6) is issued. However, an inspector may need to contact the nearest Flight Standards Service (AFS) office to coordinate issuance of the notice.

B. FAA Form 8620-1. The Aircraft Condition Notice form (Figure 6-6) is in triplicate. The top and middle sheet (both white) go to the airworthiness unit, which mails the original to the owner/lessee and retains the second. The buff-colored card must be on the aircraft where the operator can easily see it. (See Volume 8, Chapter 5, Section 5, Issue Aircraft Condition Notice.)

6-93 PILOT DOCUMENTS. When asked to present airman and medical certificates, a pilot may present a radio license formerly required by the Federal Communications Commission (FCC), or make a statement that he or she does not have one. The FCC has determined that pilots are no longer required to have this license unless flying internationally.

6-94 PILOT CONDITION. If an inspector has reason to suspect a pilot or other required crewmember is under the influence of drugs or alcohol, see Volume 6, Chapter 1, Section 6, Alcohol or Drug Testing of Flight Crewmembers.

6-95 AIRCRAFT DOCUMENTS. The following are considerations when examining aircraft documents, including registration and airworthiness certificates and approved Airplane Flight Manuals (AFM). The inspector will bring discrepancies found concerning the airworthiness

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or registration certificates to the attention of the owner/operator, document them, and give them to the airworthiness unit for action.

A. Aircraft Identification. The N-number and serial number on the registration certificate must match the N-number and serial number on the airworthiness certificate.

B. Registration Certificate. If the registered owner changes, the owner may display a temporary registration (pink slip), which is good for 90 days (refer to 14 CFR part 47, § 47.31). If the ownership has changed without a pink slip or the N-numbers do not match, the registration is not valid.

C. Flight Manual. An AFM may be required on board the aircraft if required by 14 CFR part 21, § 21.5, or the appropriate markings and placards in accordance with § 91.9.

D. Weight and Balance (W&B) Information. W&B documents, including a list of equipment, as appropriately revised, should be available for the inspector's review. Some multiengine operators have minimum equipment lists (MEL) with a letter of authorization (LOA) issued by a district office. These constitute required documentation for the aircraft and must be on board. The inspector should compare inoperative equipment to the MEL to ensure compliance.

E. Aircraft Logbooks. Inspectors should check aircraft maintenance logbooks, when available, for currency and compliance with 14 CFR part 43, §§ 43.9(a) and 43.11(a). Aircraft maintenance records come in many styles. There is no standard form or format as long as the regulatory requirements (§§ 43.9 and 43.11) for maintenance entries are provided.

F. Airworthiness Certificate.

1) There are two different classifications of FAA airworthiness certificates: standard airworthiness certificates and Special Airworthiness Certificates. The certificate most often seen by an inspector is a standard airworthiness certificate, which is issued for normal, utility, acrobatic, and transport category aircraft. Special Airworthiness Certificates are issued in the following categories:

- Primary,
- Restricted,
- Multiple,
- Limited,
- Light-sport,
- Experimental,
- Special flight permit, and
- Provisional.

NOTE: The lamination of a certificate issued under part 21 is not considered to be an alteration.

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2) A list of limitations and conditions (§§ 21.183–21.191) necessary for safe operation must accompany a restricted, limited, or experimental certificate. Special flight permits (ferry permits) are issued to aircraft that may not be Airworthy but are capable of safe flight under certain conditions, which are listed and issued with the permit (§§ 21.197, 91.203 and 91.213). Review the list of limitations and conditions to ensure a valid airworthiness certificate. The N-number on the certificate must match the N-number on the fuselage to be valid.

G. LOAs. Some operations (e.g., Reduced Vertical Separation Minimum (RVSM), North American Free Trade Agreement (NAFTA), and Category (CAT) II) require approved LOAs, which may include additional operational and maintenance requirements. Inspectors should verify an operator's authorization based on observed or anticipated activity. Inspectors should search the Web-based Operations Safety System (WebOPSS) database for an operator's most current authorization(s).

6-96 FOREIGN PILOTS OR AIRCRAFT. An operator with a foreign pilot certificate and an aircraft registered in the same foreign country (e.g., Canadian pilot and Canadian-registered aircraft) may operate in the United States; however, the holder of a foreign pilot certificate may not operate a U.S.-registered aircraft in the United States without first receiving a U.S. pilot certificate. The foreign pilot may show a current medical of his or her country or a U.S. medical.

6-97 INSTRUMENT FLIGHT RULES (IFR) HELICOPTER OPERATIONS. Most rotorcraft are certificated visual flight rules (VFR) only. Under Special Federal Aviation Regulation (SFAR) No. 29-4, some rotorcraft have been approved for IFR. Operators holding approval issued before March 2, 1983, under SFAR No. 29 through SFAR No. 29-4 may continue to use that approval until it is surrendered, revoked, or otherwise terminated, or there is a change in aircraft ownership. After March 2, 1983, the new applicant must meet all certification requirements of 14 CFR part 27 (Airworthiness Standards: Normal Category Rotorcraft) or part 29 (Airworthiness Standards: Transport Category Rotorcraft).

A. Helicopter Documents. A letter of approval (Figure 6-7, Instrument Flight Rules Helicopter Letter of Approval) with a list of limitations is issued for the helicopter. This letter, list of limitations, and a copy of SFAR No. 29-4 combine to become a Supplemental Type Certificate (STC) for the rotorcraft and must be on board in the Rotorcraft Flight Manual (RFM).

B. Pilot Documents. The operator may be approved for a one-pilot or a two-pilot crew as listed in the letter of approval.

1) Each pilot must have an instrument-helicopter rating on his or her pilot certificate.

2) Each pilot must have a current instrument proficiency check (IPC) accomplished in one of the rotorcraft listed on the letter of approval. The initial IPC must include a check in each type rotorcraft authorized. Subsequent 6-month checks must be in at least one type of rotorcraft in rotation.

3) A single-pilot operation must have demonstrated ability using a Stability Augmentation System (SAS) or an autopilot.

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4) The pilot may produce an FAA Form 8410-3, Airman Competency/Proficiency Check, if the check was done under part 135 or a logbook endorsement (or copy of one). If a pilot took this check in the calendar-month before or after the month in which it was due, the check is considered to have been done when due.

6-98 CAT II/III AUTHORIZATIONS. CAT II/III operators under part 91 are issued an LOA.

A. Aircraft Documents. The authorization or a facsimile must be on board. The operator must comply with a CAT II/III manual, which must also be on board. Operations specifications (OpSpecs) authorize CAT II/III authorizations other than part 91.

B. Pilot Documents. CAT II/III operators must use a pilot in command (PIC) and, in some cases, a second in command (SIC). Initially, the ASI must check the PIC in each type of airplane authorized. Every 6 months thereafter, the ASI must check the PIC in at least one type to renew all types. The flightcrew must meet regulatory pilot training and currency requirements, including those specified in the operator's FAA approved CAT II/III manual. There is no grace month as in part 125 or 135. The PIC may substitute a part 135 Airman Competency/Proficiency Check (FAA Form 8410-3) endorsed for CAT II or III or a logbook endorsement (or facsimile of one) to meet currency requirements.

6-99 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of the regulatory requirements of 14 CFR parts 61 and 91, as well as part 43 for Airworthiness inspectors, and FAA policies and qualification as an ASI–Operations.

B. Coordination. This task requires coordination between operations and airworthiness units and with the airman records section of the Airmen Certification Branch (AFS 760).

6-100 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR Parts 1, 43, 61, 65, 67, 91, and 125.
- Title 47 of the Code of Federal Regulations (47 CFR) Part 87.
- CAT II/III Authorization and Manual, if applicable.
- PTRS Procedures Manual (PPM).

B. Forms:

- FAA Form 8000-36, Program Tracking & Reporting Subsystem Data Sheet.
- FAA Form 8620-1, Aircraft Condition Notice.

C. Job Aids. Sample letters and figures, including applicable JTAs.

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6-101 PROCEDURES.

A. PTRS. Open the PTRS file.

B. Pre-Inspection Activities.

1) Review the district office file, if applicable, on the operator to determine if any prior violations of 14 CFR, past complaints, or inspection reports exist.

2) Note the review findings and any areas of emphasis on the part 91 job aid.

C. Location of Inspection. Proceed to the airport where the inspector will conduct the ramp inspection. Determine whether or not it is necessary to identify FAA presence to the airport operator or other operators on the airport (see Figure 6-8, Ramp Inspection Flowchart). Use the part 91 job aid to conduct the ramp inspection.

D. Inspect Airman Documents.

1) Inspect Airman Certificates to determine appropriate ratings and limitations for the type of operations they are conducting.

2) Determine if certificates are genuine and legible.

3) Inspect airman medical certificates to determine if they are current and of the appropriate class. In the case of an airman exercising the privileges of a sport pilot certificate, the airman may not possess an airman medical certificate; however, they may present a U.S. driver's license or neither (in certain cases); please refer to part 61, § 61.303 for sport pilot requirements. Check for a Statement of Demonstrated Ability (SODA), if required, on the medical certificate.

4) If available, examine pilot logbooks (or other reliable records) to determine recency of experience and qualifications, such as:

- Flight review,
- IPC, and
- PIC proficiency check.

NOTE: Sport pilots have a requirement for endorsements authorizing use of specific category and class of light-sport aircraft (LSA) and also for certain privileges; please refer to part 61 subpart J, Sport Pilots.

5) If applicable, inspect pilot CAT II and/or CAT III authorization letters for currency (refer to § 91.189).

6) Note any discrepancies on the job aid.

E. Record Aircraft Information. Record the N-number, make and model, and whether leased or owned on the job aid.

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F. Inspect Aircraft Documents.

1) Determine that the operator displays the proper airworthiness certificate at the cabin or cockpit entrance.

2) Examine the registration certificate to ensure that it is issued for that specific aircraft. Determine that the N-number on the certificate matches the N-number on the aircraft. Check that the certificate is issued to the present owner of the aircraft.

3) Determine that there is a current, approved AFM on board the aircraft, if required by § 91.9.

4) Determine if an AFM is required and if current W&B information is available for review. Compare equipment listed on the W&B form and the aircraft equipment list to the actual equipment installed.

5) If applicable, check the MEL to determine that it has:

a) Been issued by N-number and serial number to the aircraft operator.

b) An LOA from a district office; check deferred items for placards and dates.

6) If a Letter of Deviation (for part 125 aircraft) has been issued, ensure that a true copy is in the aircraft.

7) If the operator is leasing the aircraft, determine that the aircraft is carrying a copy of the lease agreement or contract. Note the expiration date on the lease and determine if the lease is still valid.

8) If applicable, determine that copies of the approved CAT II or CAT III authorization and manual are in the aircraft.

a) Review the CAT II/III authorization and provisions.

b) Check that the authorization and manual list the aircraft make, model, and N-number.

c) Consider any instrument, airport, or weather requirements listed in the authorization or in the manual.

9) If the aircraft operates under an LOA for special use airspace (e.g., North Atlantic High Level Airspace (NAT HLA) or RVSM), determine if the authorization is carried on board the aircraft, or is available upon the Administrator's request.

10) Determine if pertinent and current aeronautical charts are available.

11) Ask the operator what type of instrument operations he or she conducts (e.g., instrument landing system (ILS), distance measuring equipment (DME), Area Navigation (RNAV), Global Positioning System (GPS), and Required Navigation Performance (RNP)).

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Determine if the required radio and navigational equipment is installed for the specific operations conducted.

G. Inspect Aircraft.

1) Determine the general airworthiness of the aircraft by inspecting for items such as cracks, damage, loose or missing fasteners, or other deficiencies that may affect the safety of the flight.

2) Inspect seats and safety belts for proper installation and condition.

3) If applicable, determine if the operator has performed a current very high frequency omni-directional range (VOR) equipment check.

4) Determine if an emergency locator transmitter (ELT) is installed. Check the expiration date of the battery.

5) Determine that the aircraft identification plate exists and is secured to the aircraft fuselage exterior (refer to 14 CFR part 45, § 45.11(a)).

6) Inspect to determine that all required placards are present and legible.

H. Inspection Items for Large and Turbine-Powered Multiengine Airplanes Only. In addition to the items in subparagraphs 6-101F1–11) and 6-101G1)–6), inspect the following items, if applicable:

1) Determine if the aircraft has an emergency checklist available to the flightcrew.

2) Determine if the aircraft has one-engine-inoperative climb performance data available to the flightcrew.

3) Determine if pertinent and current aeronautical charts are available.

4) Determine if a flashlight having two D-sized cell batteries, or equivalent, is accessible from the pilot station and in good working order.

5) If the operator conducts overwater operations, determine that the required radio equipment is installed (refer to § 91.511).

6) If the operator conducts overwater operations, inspect the following survival equipment for installation and condition:

- Life preservers with approved survivor locator light (for each occupant);
- Liferafts with approved survivor locator light (number should accommodate the number of occupants of the aircraft);
- Pyrotechnic signaling devices (for each liferaft);
- Emergency radio signaling device;

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- Lifeline; and
- Appropriately equipped survival kit.

7) For transport category aircraft only, have the operator demonstrate that the aural speed warning device is in operating condition.

8) Have the operator activate the smoking and safety belt signs. Determine if they are in operable condition. Check operation from the cockpit and the cabin. If applicable, at this time, conduct the altitude alerting system or device check.

9) Determine if the operator provides the fire extinguishers in accordance with part 91 subpart L and § 91.513, and if the fire extinguishers are in compliance with Department of Transportation (DOT) inspection requirements.

10) Note whether the operator uses passenger briefing cards to supplement oral briefings. If so, inspect the cards for location and correct information (refer to part 91, § 91.519).

11) Determine if appropriate emergency equipment is on board the aircraft (refer to § 91.513).

I. Inspection Items for Turbojet Powered Civil Airplanes Only. In addition to the items in subparagraphs 6-101F1)–11), 6-101G1)–6), and 6-101H1)–11), inspect the altitude alerting system or device for installation and operation. Conduct this test at the same time as the smoking/safety belt sign and aural speed warning device test.

J. Inspection Discrepancies. If the inspector discovers a discrepancy during the inspection, he or she enters it on the appropriate job aid in the remarks section.

1) Advise the operator that if he or she operates the aircraft without correcting the discrepancy, he or she may be in violation of 14 CFR.

2) If necessary, issue FAA Form 8620-1 (Figure 6-6).

a) Attach the bottom card (buff) on the aircraft by using the string provided or any other acceptable means. Place it so that the operator will easily see it.

b) Retain the top and middle portions of FAA Form 8620-1 for return to the Flight Standards District Office (FSDO) airworthiness unit.

K. Review Job Aid. Upon completion of the inspection, review the job aid to determine if an enforcement investigation is necessary.

L. Conclude Inspection.

1) Discuss any pertinent safety information with the pilot(s) or operator.

2) Return any documentation.

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3) Advise the pilot(s) or operator of any upcoming accident prevention or other safety meetings.

4) If no discrepancies are evident, compliment the pilot(s) or operator.

M. PTRS Report. Send a followup Letter of Correction (Figure 6-9) with the Privacy Act Notice required by the Pilot's Bill of Rights (PBR) (see Volume 14, Chapter 1, Section 3) with suspense date to remind the pilot or operator of noted discrepancies. Enter the report status in the PTRS. If the pilot's aircraft are not based in the inspector's district, forward a copy of the PTRS report and the job aid to the appropriate district office.

N. District Office File. File the job aids in accordance with normal office procedures.

6-102 TASK OUTCOMES. Completion of this task results in one or more of the following:

- An indication in the district office files of a satisfactory inspection.
- An indication in the district office files of an unsatisfactory inspection.
- A Letter of Correction.
- An Aircraft Condition Notice.
- An information package sent to another district office.

6-103 FUTURE ACTIVITIES:

- A pilot or operator may be subject to a compliance investigation if the inspection reveals a possible violation of 14 CFR.
- A followup inspection may be conducted to determine if any noted discrepancies have been corrected.

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Figure 6-5. Part 91 Ramp Inspection Job Aid

PILOT NAME/ADDRESS	INSPECTION LOCATION INSPECTOR NAME	DATE OF INSPECTION

AIRCREW INFORMATION					
CERTIFICATES	AIRMAN			MEDICAL	
Name	Grade	Ratings	Number	Class	Date
1.					
2.					
3.					
4.					
5.					

INSPECTION ITEMS	S	U	REMARKS
Pilot Certificates			
Pilot experience/qual.			
Biennial Flight Review			
AIRCRAFT DOCUMENTS			
Airworthiness Certificate			
Registration Certificate			
Radio Station License			
Operating Limitations			
Weight/Balance Information			
Minimum Equipment List			
Issued by N-Number			
Issued by Serial Number			
Letter of Authorization			
Inoperative Equipment			
Aeronautical Charts			

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Figure 6-5. Part 91 Ramp Inspection Job Aid (Continued)

BASIC AIRCRAFT DATA			PAGE TWO
N-Number	Make/Model		Owned/Leased (91.54)
INSPECT AIRCRAFT	S	U	REMARKS
General Airworthiness			
ELT Battery			
VOR Check			
Seats/Safety Belts			
INSPECTION RESULTS			
REMARKS			
REGION	DISTRICT OFFICE	INSPECTOR'S SIGNATURE	

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Figure 6-6. FAA Form 8620-1, Aircraft Condition Notice

ATTENTION

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION AIRCRAFT CONDITION NOTICE *(See Privacy Act Statement on Reverse)*	Date Place of inspection
Registration number	Make
Serial number	Model

NOTE. 1. The items listed below (☐ are) (☐ are not) considered to be an imminent hazard to safety. 2. Operation of the aircraft prior to correction (☐ will) (☐ will not) be contrary to pertinent Federal Aviation Regulations. 3. A Special Flight Permit (☐ will) (☐ will not) be required to be issued prior to operation if corrective action has not been taken. 4. A Special Flight Permit may be obtained from the office named below.

The owner/lessee copy of this form was ☐ *mailed* ☐ *delivered.*

Inspector (Signature)	Area code/telephone no.
Office address	Region District

FAA Form 8620-1 (3-77) FORMERLY FAA FORM 8320-4 AND FAA FORM 8320-7

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Figure 6-7. Instrument Flight Rules Helicopter Letter of Approval

ABC Construction, Inc.
1234 Any Street
USA

To Whom It May Concern:

ABC Construction, Inc., is authorized by this approval to conduct helicopter operations under instrument flight rules (IFR) in accordance with Special Federal Aviation Regulation (SFAR) No. 29, and the limitations contained herein. A copy of this approval and a copy of SFAR No. 29-4 will be set forth as a supplement to the Rotorcraft Flight Manual (RFM), along with those operating limitations considered necessary for the safe operation of the rotorcraft in IFR operations, as incorporated in the operating limitations section. This letter of approval, the operating limitations, and a copy of SFAR No. 29-4, constitute a Supplemental Type Certificate (STC) and must be on board the aircraft.

LIMITATIONS:

1. Only those helicopters listed, as follows, will be operated under this approval: (e.g., Bell Model 206, Serial No. 123245, Registration No. N54321).

2. For single–pilot operation, an approved and operable Stability Augmentation System (SAS)/autopilot may be used in lieu of a second in command (SIC). Otherwise, the minimum flightcrew must include a pilot in command (PIC) and an SIC (e.g., SAS/autopilot, make (XYZ), and model (123)).

3. Each pilot must hold a rotorcraft-helicopter rating and an instrument-helicopter rating (except as specified in paragraph 4).

4. For the purpose of instrument instruction, each PIC must hold a flight instructor certificate with rotorcraft-helicopter and instrument helicopter ratings. The SIC must hold a pilot's certificate with a rotorcraft-helicopter rating. The second pilot need not comply with paragraph 5 of this letter while undergoing the formal training program leading toward an instrument-helicopter rating.

5. Each PIC authorized single-pilot approval must have satisfactorily accomplished an instrument proficiency check (IPC) utilizing an SAS or autopilot in lieu of an SIC within the preceding 6 calendar-months.

6. Each pilot crewmember must have in his or her personal possession evidence of proficiency issued by an FAA inspector or authorized check pilot within the previous 6 calendar-months.

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7. Each helicopter operated under IFR shall meet the instrument and equipment requirements of Title 14 of the Code of Federal Regulations (14 CFR) part 91, § 91.205 and the following additional equipment:

a. An independently powered standby attitude indicator.

b. A heated pitot tube and static port, or equivalent means of preventing airspeed and static system malfunction due to icing.

c. The required instruments per 14 CFR part 27, §§ 27.771 and 27.1321, or 14 CFR part 29, §§ 29.771 and 29.1321, as appropriate.

d. The PIC must use a boom mike. The transmitter must be capable of being activated through a device located on the flight controls.

The instruments and equipment must be operable. A complete set of flight controls shall be installed and operable at each pilot station, except that single pilot approval will require a set of flight controls only at the PIC station.

8. In accordance with paragraph 4 of SFAR No. 29-4, fuel reserve required by part 91, § 91.23(a)(3) may be reduced to 30 minutes.

9. ABC Construction, Inc., will provide immediate notification to the Flight Standards District Office (FSDO) issuing this approval of any “hazardous” flight conditions encountered during IFR operations under SFAR No. 29-4.

This approval will remain in effect until such time as it is surrendered, revoked, or otherwise terminated, or a change in the aircraft ownership takes place.

John P. Brown,
Manager

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Figure 6-8. Ramp Inspection Flowchart

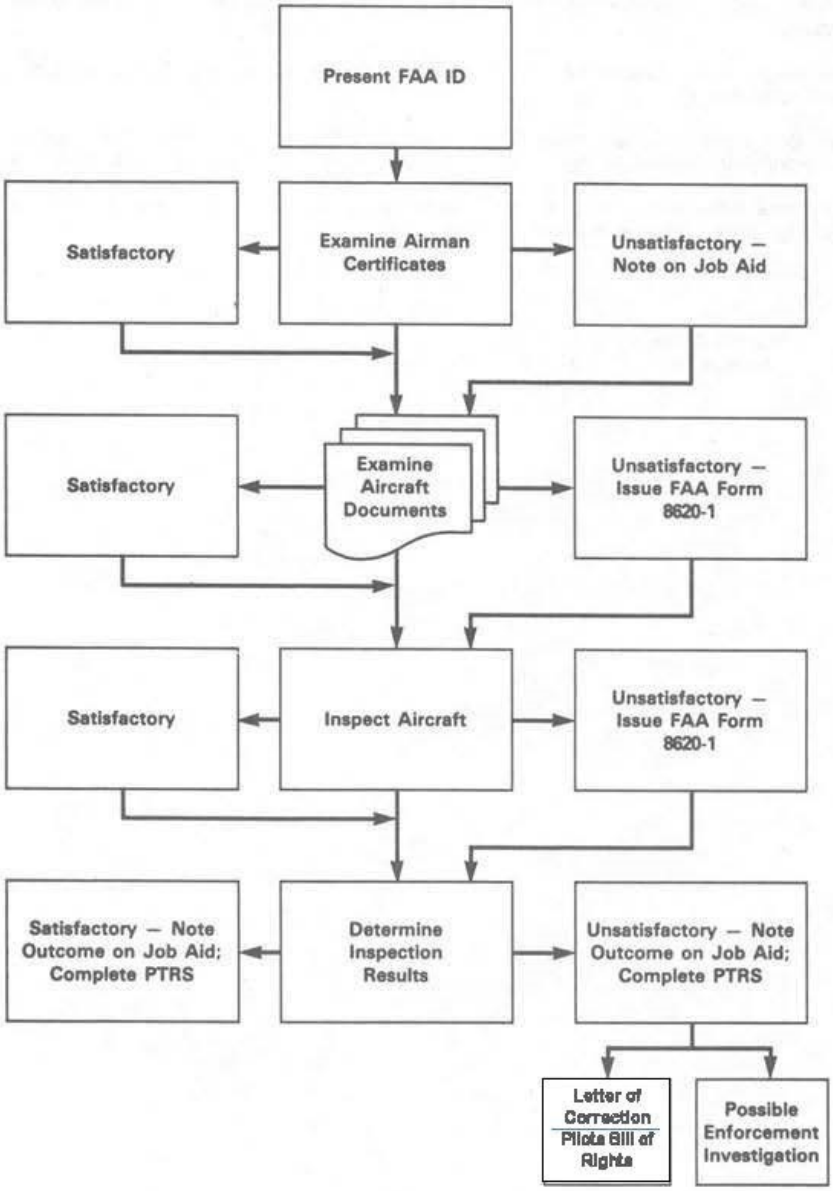

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Figure 6-9. Letter of Correction

FAA LETTERHEAD

Addressed to pilot/operator

Dear _____:

This letter is to notify you that an inspection of your [insert either documents or aircraft; if aircraft, indicate the make, model, and N-number] on [insert date of the inspection] at [insert location] revealed deficiencies in the following:

List specific items and the related Title 14 of the Code of Federal Regulations (14 CFR) (e.g., minimum equipment list (MEL) letter of authorization (LOA) not carried on board the aircraft, refer to 14 CFR part 91, § 91.213).

Your prompt attention to correcting these items is appreciated. Please respond to this office within 10 days to indicate your corrective action. If we may be of assistance, please call [include telephone number and operating hours of the district office].

Sincerely,

Signed by the inspector conducting the inspection

RESERVED. Paragraphs 6-104 through 6-118.

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VOLUME 6 SURVEILLANCE

CHAPTER 11 OTHER SURVEILLANCE

Section 11 Reserved

RESERVED. Paragraphs 6-2591 through 6-2615.

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VOLUME 14 COMPLIANCE AND ENFORCEMENT

CHAPTER 1 FLIGHT STANDARDS SERVICE COMPLIANCE POLICY

Section 1 Flight Standards Service Compliance Philosophy

14-1-1-1 GENERAL. In 2015, Federal Aviation Administration (FAA) Order 8000.373, Federal Aviation Administration Compliance Philosophy, was published, followed by Notice 8900.323, Flight Standards Service Compliance Policy. New Volume 14, Chapter 1, Sections 1 and 2, were published to align AFS policy with Order 8000.373, N 8900.323, and related changes to the current edition of FAA Order 2150.3, FAA Compliance and Enforcement Program.[1] Together, these changes enabled FAA program offices such as AFS to become policy owners for Compliance Actions below the level of administrative or legal enforcement action. See Volume 14, Chapter 1, Section 2, subparagraph 14-1-2-3D for the definition of Compliance Action. On February 2, 2016, N 8900.343, Flight Standards Service Compliance Policy, replaced N 8900.323. Volume 14 changes are incorporated as described in the new notice and also in response to Compliance Philosophy (CP) feedback received from internal and external stakeholders. N 8900.343 content remains in effect until incorporated in this order.

A. Purpose. This section provides the basis for and outlines the AFS CP. This section introduces the use of AFS Compliance Action to address, when appropriate, safety concerns and actual or apparent deviations from regulations or standards discovered during inspections or surveillance. AFS CP directly supports the FAA CP, conserving FAA resources by using the most efficient and effective means to return an individual or entity to full compliance and to prevent recurrence.

B. Scope. The AFS CP should be routinely applied to all AFS interactions with airmen, certificated entities, non-certificated persons, and to all AFS investigatory processes, using the procedural guidance in Volume 14, Chapter 1, Section 2. Except as described in the FAA CP, or as required by law and specific program commitments, where older AFS policy conflicts with Volume 14, Chapter 1, Sections 1 and 2, this newer policy must be followed until the older policy is revised. The AFS Director is committed to reviewing all prior program commitments (see note below) and revising them, where appropriate, to align with the FAA CP. When in doubt as to the appropriate course of action or policy to follow, inspectors should work through their Front Line Managers (FLM) and office managers with the appropriate regional branches and policy divisions for clarification.

NOTE: AFS must follow policy and process commitments made to Congress, the Inspector General (IG), and other external parties. Inspectors must be mindful of these commitments and respect other critical processes outlined in FAA policy. Examples include, but are not limited to, Airworthiness Directives (AD),[2]

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[1] With AFS-1 Priority Project publication of this new Chapter 1: former ("legacy") Volume 14, Chapter 1, Sections 2 through 7 were updated and moved to Chapter 2 and 3; former Chapter 1, Section 8, Enforcement Decision Process, was deleted. Chapters 1 to 3 were thus aligned with the FAA Compliance Philosophy order, AFS Compliance Policy notice, and the revised Order 2150.3. AFS personnel must use the new guidance in Chapters 1 through 3 until contrary guidance is corrected throughout Order 8900.1.

[2] See Volume 3, Chapter 60, Section 1.

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Aviation Safety Action Programs (ASAP),[3] Aviation Safety Reporting Program (ASRP),[4] flight operations quality assurance (FOQA),[5] all noncompliance by military and foreign pilots,[6] Special Emphasis Enforcement Programs,[7] and Voluntary Disclosure Reporting Programs (VDRP).[8] As time permits, AFS will review and revise these commitments as necessary to align them with the FAA CP and AFS Compliance Policy. See paragraphs 14-1-2-7 and 14-1-2-9 for additional ASAP and VDRP requirements.

14-1-1-3 BACKGROUND.

A. FAA Statutory Authority. The FAA's statutory authority to prescribe, revise, and enforce standards is in Title 49 of the United States Code (49 U.S.C.), Subtitle VII, chapter 447, Safety Regulation, and is the foundation for the purpose and mission of AFS.

B. Shared Safety Duties and Responsibilities. The responsibility for aviation safety does not rest entirely with the FAA. All airmen, air carriers, aircraft owners and operators, air agencies, and certain airport operators who qualify for and accept an FAA certificate have statutory or regulatory safety duties. The safety of our National Airspace System (NAS) is based on each individual certificate holder's duty and responsibility to provide for public safety and for air carriers to provide service with the highest possible degree of safety in the public interest.[9] Aviation service providers must provide their services or products in a manner that is compliant with regulations and standards, and they must do so safely.

C. Historical Compliance and Enforcement Program Supports the FAA CP. Public law and agency policy allow FAA program offices to use discretion when taking action to resolve safety issues in the NAS. For several years, the FAA Compliance and Enforcement Program (Order 2150.3, Chapter 2) has included the following policy language:

1) Voluntary Compliance. "Civil aviation safety depends on voluntary adherence to legal requirements. Therefore, the FAA administers programs to promote a clear awareness and understanding of the governing statute and regulations."

2) Education. "FAA investigative personnel should take advantage of opportunities during their surveillance and inspection activities to strengthen a regulated person's understanding of the statutory and regulatory requirements. The FAA also promotes education through public awareness programs and other special aviation educational efforts."

3) FAA Responses to Noncompliance. "[P]ersonnel must…appropriately address every apparent or alleged violation.… The agency has a wide range of options available for addressing apparent [noncompliance found during inspections and surveillance]."

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[3] See Volume 11, Chapter 2, Section 1.
[4] Refer to Order 2150.3, chapter 2.
[5] See Volume 11, Chapter 2, Section 2.
[6] See Volume 7, Chapter 1, Section 2.
[7] Refer to Order 2150.3, chapters 2 and 7 and appendix H.
[8] See Volume 11, Chapter 1, Section 1.
[9] Refer to 49 U.S.C. § 44701(d)(1)(A).

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4) Recommendations. "FAA investigative personnel… [o]ften… are in the best position to evaluate various subjective considerations… and whether an alternative to legal enforcement action may be sufficient to achieve compliance."

D. Regulatory Goals. The ultimate goal is to prevent deviation from regulatory standards, a goal primarily achieved through design and application of effective processes and practices; education and counseling designed to encourage awareness and understanding of risks; and voluntary compliance. All inspectors must become involved in this evaluation, education, and counseling process.

E. Voluntary Compliance and Collaboration. The high level of safety in the NAS is largely based on, and dependent upon, voluntary compliance with regulatory standards. Our safety record shows that the majority of NAS participants have a good safety culture. The success of FAA voluntary programs such as the ASAP and VDRP has demonstrated that a collaborative CP, supported by a positive safety culture, provides the highest levels of compliance with regulations, the most effective identification of hazards, and the most efficient management of risks.

14-1-1-5 EVOLUTION OF COMPLIANCE STRATEGIES.

A. The 2014 FAA Strategic Initiatives:[10]

1) Global Leadership. To improve safety, air traffic efficiency, and environmental sustainability across the globe through an integrated, data-driven approach that shapes global standards enhances collaboration and harmonization, and better targets FAA resources and efforts.

2) NAS. Lay the foundation for the NAS of the future by achieving prioritized Next Generation Air Transportation System (NextGen) benefits, integrating new user entrants, and delivering more efficient streamlined services.

3) Risk-Based Decision Making. Build on system management principles to proactively address emerging safety risk by using consistent, data-informed approaches to make smarter, system level, risk-based decisions.

4) Workforce of the Future. Prepare FAA's human capital for the future by identifying, recruiting, and training a workforce with the leadership, technical, and foundational skills to ensure the United States has the world's safest and most productive aviation sector.

B. Increasing NAS Complexity. Traditional oversight relies on the assumption that if an airman/organization is fully compliant with the applicable regulatory requirements, then an adequate level of safety is achieved. However, the aviation environment has reached a level of complexity where further safety improvements cannot be achieved by simple compliance with prescriptive rules.

[10] More information at https://my.faa.gov/org/staffoffices/AOA1/Strategic_Initiatives_Group.html.

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C. Compliance Strategy Evolution. The FAA's Strategic Initiatives, increasing NAS complexity, and unknown emerging hazards/risks require AFS compliance strategies to evolve. The AFS workforce must exercise interdependence, critical thinking, and consistency while working together with all NAS users to achieve a higher level of compliance and safety.[11] Regulatory compliance must move beyond viewing the regulations simply as administrative or legal requirements; compliance entails effective control of clearly defined hazards, as intended in the rules.

14-1-1-7 COMPLIANCE PHILOSOPHY.

A. Greatest Safety Risk. The outcome of an event is not what determines whether or not the behavior is acceptable or unacceptable. The greatest systemic safety risk is not from a specific operational event or its outcome, but rather from an airman or organization's unwillingness or inability to comply with safety standards and, most importantly, operating contrary to the core principles of Safety Risk Management (SRM). AFS must be more efficient and effective in resolving deviations and must use the strongest responses for airmen/entities whose behaviors represent the greatest safety risk to the NAS.

B. Goal. The goal is to identify safety issues that underlie deviations from standards and correct them as effectively, quickly, and efficiently as possible. Inspectors should use the most effective means to return an individual or entity that holds an FAA certificate, approval, authorization, or license to full compliance and to prevent recurrence. The AFS CP requires AFS personnel to engage in a solution-oriented, outcomes-based approach to identify safety issues and correct noncompliance. Inspectors are expected to use interdependence and critical thinking to evaluate the discrete facts of a particular situation, and then choose the best tool to fix the problem, consistent with regulations, policies, and the specific circumstances of each event. Followup is used to validate that the desired corrective actions were taken, and that they had the intended outcome for safety and compliance. This view of compliance stresses a problem-solving approach where enhancement of the safety performance of individuals and entities is the goal. This approach will more effectively address inadvertent deviations and conserve FAA enforcement resources for intentional, reckless,[12] criminal, and uncooperative behavior. If the deviation does not involve intentional, reckless, or criminal behavior and the airman/organization is qualified and willing to cooperate, AFS should resolve the issue through use of compliance tools, techniques, concepts, and programs.

C. Most Deviations Can Be Effectively Corrected. Deviations by certificate holders often arise from factors such as flawed procedures, simple mistakes, lack of understanding, or diminished skills. The FAA believes that deviations of this nature can most effectively be corrected through Root Cause Analysis (RCA)[13] and appropriate corrective actions by the airmen/entities involved, which are documented and verified by AFS to ensure effectiveness. Inspectors must contemplate all the tools available and apply the remedy most appropriate to the specific circumstances. Possible remedies to address deviations include, but are not limited to:

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[11] Foundational skills and expectations will be addressed in detail in a future revision to this order in Volume 1. Until then, the AFS Director's expectations for interdependence, critical thinking, and consistency are available at https://my.faa.gov/org/linebusiness/avs/offices/afs/afs1_monthly_msgs.html.

[12] See Volume 14, Chapter 3, Section 5.

[13] See training resources listed in subparagraph 14-1-1-13D.

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training/education, on-the-spot corrections, counseling, and remedial training. Improvements to systems, procedures, or training programs for organizations may also be appropriate.
The inspector documents corrective actions taken by the airman/organization and verifies the actions were effective through appropriate followup.

D. Effective Problem-Solving. The focus of the AFS workforce should be to collaborate with the parties involved on correctly identifying and fixing the root cause(s) of deviations or noncompliance.

1) Fixing root causes is the best way to prevent recurrence. In the majority of cases, finding and fixing safety problems in all parts of the NAS can be done most effectively with a collaborative approach and the voluntary participation of all parties involved. AFS inspectors and other staff can have a significant impact on safety by remaining focused on problem-solving, correctly identifying root causes, and recommending appropriate corrective actions to adequately mitigate the risks involved. Such a focused and unbiased approach will normally be a strong encouragement to collaboration and voluntary compliance from those involved.

2) Inspectors must use critical thinking in a problem-solving approach that stresses developing effective individual and organizational risk management (RM) environments. When appropriate, inspectors should engage collaboratively with airmen and organizations to encourage development of system-level risk mitigations on issues for which such methods may effectively ensure ongoing compliance.

E. Use of Enforcement and Other Tools/Resources When Needed.

1) The FAA views intentional or reckless deviations from regulatory standards (as described in Volume 14, Chapter 3, Section 5 and Order 2150.3, chapter 5) or patterns of behavior or performance that present an unacceptable risk to safety as posing the highest risk to safe operation of the NAS. Those deviations require strong enforcement.[14]

2) Failure to implement or to complete corrective action on terms satisfactory to the FAA.

NOTE: A failure to implement agreed-upon corrective action differs from implementing an agreed-upon corrective action that does not achieve its intended purpose. In the latter case, further Compliance Action for additional/revised corrective action(s) may be appropriate.

3) Conduct that creates or threatens to create a significant risk to safety when the Flight Standards Service Director (AFS-1) determines that alternative means to address the noncompliance and to effectuate immediate and future compliance would not be sufficient. These instances are normally initiated by the Director.

[14] We must never act arbitrarily or before considering all facts and circumstances. For example, an in-flight emergency may be a mitigating factor. See Volume 14, Chapter 3, Section 7.

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4) Legal enforcement action will be taken when required by law (the express terms of a statute or regulation).

5) Matters involving qualifications or competence of certificate holders will be addressed appropriately by following FAA policy on retraining, reexamination, and/or enforcement. (Refer to Volume 14, Chapter 3, Section 2; Volume 5, Chapter 7; and Order 2150.3, chapter 5, paragraph 8.)

6) Regulatory violations involving criminal activity will be referred to FAA Security for coordination with the proper Law Enforcement Organization and may be addressed by AFS personnel with enforcement. (Refer to Order 2150.3, chapter 5, paragraph 9.)

14-1-1-9 AFS COMPLIANCE EXPECTATIONS FOR NAS USERS.

A. Regulatory Risk Controls. The FAA establishes regulatory standards to ensure safe operations in the NAS. When an airman's behavior or performance, or an organizational system's behavior or performance, presents an unacceptable risk, the FAA may propose new risk controls, which are established through a public process as regulations. Therefore, behaviors or performance contrary to a regulatory standard represents a previously identified unacceptable risk.

B. Managing Operational Risks.

1) Regardless of how robust and compliant a system is, risk still exists; developing rules for every possible situation is ineffective, if not impossible. Although compliance is still a minimum expectation, experience has shown that simple compliance with regulations does not guarantee safety. Operational risks must still be managed through positive system-level action by the airmen and organizations themselves. It is important to recognize that this obligation includes a duty to develop and use processes and procedures that will prevent deviation from standards and enhance safety.

2) In some situations based on unique equipment, conditions, experience, training, or type of operation, even behaviors or performance within regulatory standards may present unacceptable risk. In those cases, the FAA expects individuals or entities to proactively identify and manage those risks. For example, in private, personal, or recreational aviation, the FAA promotes the best practice of pilots setting their own personal weather minimums to manage individual safety risks. In commercial aviation, the FAA expects organizations to manage their unique risks through specialized training or with procedural tools like formal hazard identification and risk assessments. In short, every participant in the NAS has a duty to manage the safety risks unique to that participant, with those risks mitigated to a level appropriate to the public interest involved.

C. Safety Management Systems (SMS). SMS has been adopted worldwide as a management tool and standardized approach to managing risk. The goal is to ensure that all potential associated hazards are identified and analyzed, and that the risk is either accepted or mitigated to an acceptable level through controls.

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1) In the Title 14 of the Code of Federal Regulations (14 CFR) part 121 air carrier environment, the FAA now requires the use of SMS. Title 14 CFR part 5 specifies a basic set of processes integral to an effective SMS but does not specify particular methods for implementing these processes. The FAA expects each air carrier to develop an SMS that works for its unique operation.

2) To reach the highest level of safety and compliance with regulatory standards, the FAA is implementing SMS constructs as a best practice throughout the NAS based on comprehensive safety data sharing between the FAA and the aviation community. In essence, the FAA will be evaluating other organizations' SRM processes to see how well they each provide methods that identify the hazards and control the risks they have identified. Safety data shared by NAS participants through voluntary safety programs such as company internal hazard reporting, ASAP, Aviation Safety Reporting System (ASRS), VDRP, and others have contributed significantly to FAA and industry knowledge of risks in the NAS. These data collection and sharing programs should be encouraged and expanded to mitigate such risks before they lead to mishaps. At the individual airman level, the same safety benefits can be realized using the CP with open conversations and collaborative problem solving to properly identify root causes and permanently fix safety issues.

3) The SMS approach is applicable to individual airmen as well as to large and complex organizations. It offers a problem-solving approach where individuals and organizations have the primary responsibility for safety performance enhancements. Good safety management practices are expected of all airmen and organizations.

D. Human Factors and Human Error.

1) Human beings commit errors. Even the most dedicated professionals can inadvertently drift from full compliance with policies, processes, and procedures due to complacency or shortcomings in the larger systems in which they work. Unfortunately, the complexity of today's aerospace system means that even inadvertent and unintentional errors (honest mistakes) can have a serious adverse impact on safety.

2) To address the risk of human error, an airman or organization must account for the inevitability of human error through effective safety barriers and risk controls that focus on prevention, detection, and the mitigation of error consequences on the NAS. Deviations must be identified and resolved by airmen/organizations, collaborative/voluntary programs, or by AFS surveillance and followup. In addition, there must be expectation of, and appreciation for, self-disclosure.

14-1-1-11 COMPLIANCE EXPECTATIONS FOR AFS EMPLOYEES.

A. Policy. Inspectors will follow the Compliance Action Decision Process in Volume 14, Chapter 1, Section 2. Compliance Action Program Tracking and Reporting Subsystem (PTRS) records must hold up under internal and external review.

B. Professionalism. The FAA must demonstrate a high level of professionalism and cooperation while engaged in Compliance Action. Each inspector's acts, communication,

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and behavior should reduce the fear of unreasonable FAA actions and nurture or reinforce effective safety reporting from airmen/organizations.

C. Active Communication. Inspectors will communicate with the parties involved in an apparent deviation or noncompliance and seek agreement on a corrective action plan (CAP) which adequately addresses the root cause(s) that led to the noncompliance. Airmen/organizations should be given a reasonable time to implement corrections, with a clear suspense date and expectation of followup from AFS. The agreed-upon corrections will be implemented and monitored to ensure future compliance. If the corrective measures are later determined to be inadequate, inspectors will continue to communicate with the airmen/organizations to adequately mitigate remaining risks.

D. Foundational Expectations.[15] Inspectors will use interdependence and critical thinking to evaluate the discrete facts of a particular situation and then choose the best tool(s) to fix the problem, ensuring the outcome is consistent with regulations, policies, and the specific circumstances of each event.

E. Just Culture.[16] AFS must be fair, reasonable, and just. Inspectors must consider all circumstances relating to the facts and allegations. They must make a good faith effort to understand the position of the airman/organization and to communicate the agency's position in a timely manner. AFS must promote and implement a just safety culture approach. Errors must be identified, reported, and analyzed in a non-blaming manner so that appropriate remedial or system-wide corrective action can be taken based on the specific facts and circumstances of each case. Inspectors must understand the difference between accountability, which accepts responsibility and looks forward, and blame, which focuses on punishment for what has already occurred. Key to a just safety culture is the ability to determine where the line should be drawn between blameless unsafe acts that can be effectively addressed through use of compliance tools and unacceptable behavior that requires use of enforcement action.

F. Consistent Application. To be effective, the AFS CP must be applied consistently across AFS.

1) Every situation is different. Inspectors must recognize there are many ways for regulated entities to comply with regulations and operate safely. The consistent result should always be effectively managed risk. In this context, consistency means interdependently evaluating each discrete set of facts and anchoring our work in rules and standards, consistent with rule and policy interpretations, and ensuring that safety risks are effectively managed.

2) Compliance Action may be utilized when a deviation from standards arises with an airman/organization and the inspector can reasonably be assured that future compliance can

[15] Foundational skills and expectations will be addressed in detail in a future revision to this order in Volume 1. Until then, the AFS Director's expectations for interdependence, critical thinking, and consistency are available at https://my.faa.gov/org/linebusiness/avs/offices/afs/afs1_monthly_msgs.html.

[16] For additional information, see the Global Aviation Information Network (GAIN) 2004 publication, A Roadmap to a Just Culture, at http://flightsafety.org/files/just_culture.pdf and http://www.skybrary.aero/index.php/Just_Culture.

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be achieved through the action. The decision to use Compliance Action may be made by the inspector during the course of observation, surveillance, inspection, investigation, etc.

3) Inspectors must emphasize to each airman/organization that it is their responsibility to develop and take corrective actions to remain in compliance. When in doubt as to the effectiveness or appropriateness of any airman/organization corrective actions, inspectors must work interdependently with colleagues to determine whether, and how, the airmen/organization can mitigate risk to the extent needed to meet their current and future compliance obligations. In other words, make sure the problem is fixed.

G. Due Process Considerations. The below explanations and example scenario are provided to illustrate the interrelationship between Compliance Actions, Enforcement Actions, and the Pilot's Bill of Rights (PBR) notification requirements. The scenario is not intended to represent the workflow or process used to address a pilot deviation (PD). Regardless of any Enforcement Action taken, the primary focus of the inspector in every case should be stopping any noncompliance and mitigating any safety risks in the NAS. Safety mitigation steps have been left out of the below paragraphs for clarity of the due process illustration.

NOTE: In PTRS records and in communications with the certificate holder, clearly identify the findings and required actions that have a regulatory basis and any other non-regulatory FAA concerns/recommendations to make improvements or use best practices. Document these non-regulatory recommendations per Volume 14, Chapter 1, Section 2, subparagraph 14-1-2-9B).

1) Compliance Action. When an inspector discovers safety concerns or an apparent or actual deviation from standards, ensures the deviation has stopped, and concludes that Compliance Action is appropriate (using the Compliance Action Decision Process in Volume 14, Chapter 1, Section 2), successful completion of the FAA's Compliance Action documentation (in the PTRS and/or SAS) may be all that is necessary to close the issue.

a) The CP supports open and transparent safety information sharing between the FAA and airmen/organizations. Compliance Action is a method to correct unintentional deviations or noncompliance that arise from factors such as flawed procedures, simple mistakes, lack of understanding, or diminished skills. Its only purpose is to restore compliance and to identify and correct any underlying cause(s) that led to the deviation.

b) Aviation safety inspectors (ASI) must consider restoring compliance and mitigating the safety risk as the overall purpose of any inquiry involving a potential noncompliance. Although the investigation may reveal that action needs to be taken with an airman, addressing the overall safety issue remains the target of the investigation.

2) CP and the PBR. A Brochure has been developed with information on the CP that also includes content meeting the PBR Act notification requirements.

a) The Brochure is available in this volume's Appendix 14-1, Compliance Philosophy and Pilot's Bill of Rights Brochure, and at www.faa.gov/go/cp. All ASIs are

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encouraged to provide the brochure at public aviation events, and through any other opportunity to share safety or policy information.

b) See Volume 14, Chapter 1, Section 3 for new PBR policy and required uses of the Brochure for investigatory and other airman contacts.

3) Reconsideration After Starting Compliance Action. If an initial attempt is made at Compliance Action, but facts and circumstances later indicate that enforcement action is required, a Letter of Investigation (LOI) should be sent, including PBR notification for airmen. An LOI is not required if an airman has already provided adequate input to determine that Administrative Enforcement Action is appropriate, in which case a Streamlined Administrative Action, Warning Notice, or Letter of Correction can be sent without an LOI. PBR notification must still be provided to airmen by the ASI for locally generated Administrative Actions. Even if a Compliance Action PTRS record is terminated and Enforcement Action is taken, AFS personnel must remain focused on resolving the safety issues at hand, which could include ongoing communication with the airman/organization to stop any noncompliance, mitigate risk, and prevent recurrence.

4) Administrative Enforcement Action. Sufficient evidence must exist to prove an apparent deviation or noncompliance in order to take Administrative Action, but that evidence need not meet the same standards required for Legal Enforcement Action.

a) For example, AFS receives notification from the Air Traffic Organization (ATO) of a suspected PD, and ATO automatically retains some data on the event in the Knowledge Services Network (KSN) system. The inspector assigned to review the suspected PD can print, save, and review this data and make a determination that Compliance Action is appropriate.

b) If the involved airman/organization's performance or behavior becomes unacceptable as described above in subparagraph 14-1-1-7E1), or the agreed-upon corrective action is not implemented, a Warning Notice may be appropriate if the saved KSN data substantiates noncompliance. For the newly unacceptable compliance performance/behavior, inspectors are encouraged to continue communicating with the airman/organization through an LOI, including clarifying that Enforcement Action is now the minimum FAA response based on the unacceptable behavior or insufficient corrective action.

c) An LOI (with PBR notification for airmen) is normally required when, despite the inspector's reasonable efforts to communicate and restore compliance, the airman/organization's behavior or performance is unacceptable per subparagraph 14-1-1-7E1) *and* the inspector has (or believes he or she can obtain) sufficient evidence to legally prove all elements of an apparent violation. An LOI is not required if an airman has already provided adequate input to determine that Administrative Enforcement Action is appropriate, in which case a Streamlined Administrative Action, Warning Notice, or Letter of Correction can be sent without an LOI. PBR notification must still be provided to airmen by the ASI for locally generated Administrative Actions.

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5) Legal Enforcement Action. Our first priority is always to solve the safety problem. It is important to solve the majority of safety problems at the appropriate level through Compliance Action whenever possible, which supports and improves the already good safety culture in the NAS. As a matter of policy, AFS accepts the fact that we may sometimes lose the opportunity to take Legal Action because the opportunity to collect perishable evidence was missed. Completed and terminated Compliance Actions, and Administrative Actions, are still documented with PTRS records, which can be used to establish a pattern of behavior in the future. An LOI (with PBR notification for airmen) is required when, despite the inspector's reasonable efforts to communicate and restore compliance, the airman/organization's behavior or performance is unacceptable per subparagraph 14-1-1-7E1), or when Legal Enforcement Action is otherwise required by law or policy.

NOTE: Airman statements are not the only evidence available to support Legal Action. For example, if a mechanic admits (before receiving PBR notification) to deliberately installing an incorrect part because the correct one wasn't available, the installed part and the approval for return to service logbook entry are sufficient evidence to move forward with a 14 CFR part 43, § 43.13(a) case even though the admission may not be used to cite § 43.12(a)(1).

6) Reconsideration After Starting Enforcement Action. See Volume 14, Appendix 14-5, Guidance for Review of Enforcement Cases Under the FAA's Compliance Philosophy, for work instructions on AFS or FAA Office of the Chief Counsel (AGC) changing FAA's response after an Enforcement Information System (EIS) entry has been made. These instructions were developed in coordination with AGC.

H. Safety Management and Data Quality. Internal to the FAA, quality documentation of safety issues within AFS data systems is essential to provide useful historical information and data for systemic analysis. AFS personnel must keep safety management principles in mind when recording deviations (e.g., in the comments section of the PTRS or other data systems). Detailed reporting allows for a more complete map of risk factors and risk behaviors for analysis. The more we can learn about precursor risk factors, the greater the opportunity to drive down accident probabilities even further. A single event may seem minor, but multiple events may indicate increased risk. Habitually recording these minor events enables larger problems to be identified.

I. Consider All Compliance Tools. AFS is confident that inspectors (following Compliance Action policy guidance, working interdependently, and using critical thinking) will correctly identify events, consider all the compliance tools available,[17] and apply the remedy most appropriate to the specific facts and circumstances.

[17] ASI compliance and risk mitigation tools (which can be used together or in combination per policy) include: communicating risks to certificate holders verbally and in writing, including making recommendations/suggestions; revising or withdrawing approval for operations specifications (OpSpecs), programs, manuals, or other authorizations and limitations; retargeting and/or increasing surveillance; elevating issues for higher-level AFS support or additional resources; Compliance Actions per this volume; and Enforcement Actions per this volume and Order 2150.3.

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14-1-1-13 REFERENCES.

A. Additional Policy Guidance (current editions):

- FAA Notice 8900.343, Flight Standards Service Compliance Policy (replacing N 8900.323).
- FAA Order 8000.373, Federal Aviation Administration Compliance Philosophy.
- FAA Order 2150.3, FAA Compliance and Enforcement Program.
- FAA Order VS 8000.367, Aviation Safety (AVS) Safety Management System Requirements.
- FAA Order 8000.368, Flight Standards Service Oversight.
- FAA Order 8000.369, Safety Management System.
- FAA Order VS 8000.370, Aviation Safety (AVS) Safety Policy.
- FAA Order 8000.88, PRIA Guidance for FAA Inspectors.
- FAA Order 8040.4, Safety Risk Management Policy.
- FAA PTRS Procedures Manual (PPM) (which includes information on releasability under the Freedom of Information Action (FOIA)): http://fsims.faa.gov/wdocs/other/ptrs_procedures_manual.htm.
- FOIA Exemptions Summary Sheet: https://my.faa.gov/content/dam/myfaa/org/staffoffices/afn/administration/foia/foia_tool_kit/worktools/FOIA-Exemptions-Summary.pdf.

B. Handbooks and Advisory Circulars (AC) (current editions):

- FAA-H-8083-2, Risk Management Handbook: http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/risk_management_hb_change_1.pdf.
- AC 120-92, Safety Management Systems for Aviation Service Providers.

C. Other Information:

- Global Aviation Information Network (GAIN), A Roadmap to a Just Culture, First Edition, September 2004, available at http://flightsafety.org/files/just_culture.pdf.
- Eurocontrol, Just Culture Web page at http://www.skybrary.aero/index.php/Just_Culture.
- Sidney Dekker, Just Culture: Balancing Safety and Accountability, Second Edition, 2012.
- Sidney Dekker, Second Victim: Error, Guilt, Trauma, and Resilience, 2013.
- Sidney Dekker, The Field Guide to Understanding ‘Human Error,’ Third Edition, 2014.
- R. Key Dismukes, Benjamin A. Berman, and Loukia D. Loukopoulos, The Limits of Expertise: Rethinking Pilot Error and the Causes of Airline Accidents, 2007.
- James Reason, Managing the Risks of Organizational Accidents, 1997.

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- Report of the Independent Review Team, Managing Risks in Civil Aviation: A Review of the FAA's Approach to Safety, 2008, at http://www.faa.gov/aircraft/air_cert/continued_operation/ad/ad_arc/media/IRTreport.pdf.
- Malcolm K. Sparrow, The Regulatory Craft: Controlling Risks, Solving Problems, and Managing Compliance, 2000, at https://openlibrary.org/books/OL8050332M/The_Regulatory_Craft.
- Aviation Risk Management Solutions (ARMS) Working Group, The ARMS Methodology for Operational Risk Assessment in Aviation Organisations, 2010, at http://www.skybrary.aero/bookshelf/books/1141.pdf.
- Eurocontrol, Systems Thinking for Safety: Ten Principles (A White Paper), 2014, at http://www.skybrary.aero/index.php/Toolkit:Systems_Thinking_for_Safety:_Ten_Principles.

D. Training Resources.

1) Root Cause Analysis (RCA) Introduction (Course FAA27000008). A 60-minute online course, the Introduction to Root Cause Analysis (RCA) course goal is for the workforce to gain an appreciation of RCA through an introduction of concepts, tools, and illustrative examples.

2) Root Cause Analysis Overview (Briefing FAA30120001). A 2-hour online briefing, including:

- RCA terms and definitions;
- Corrective and preventive action;
- Methods used to determine root causes;
- Techniques used for three RCA methods;
- Five whys; and
- Fishbone method examples.

3) Root Cause Analysis Workshop (Workshop FAA30120002). A 4-hour instructor-led workshop, including:

- RCA tools;
- Cause and effect diagrams;
- Fault trees;
- Five whys;
- Cause and effect analysis;
- Problem statement construction;
- Data collection; and
- Developing corrective and preventive actions.

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4) Root Cause Analysis for Quality Management (Course FAA24914).
An 8-hour instructor-led course offered Aviation Safety (AVS)-wide, the course material directly supports the Quality Management System (QMS) and indirectly supports other investigation activities.

14-1-1-15 FUTURE TASKS. See Volume 14, Chapter 1, Section 2, Flight Standards Service Compliance Action Decision Procedure.

14-1-1-17 through 14-1-1-31 RESERVED.

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VOLUME 14 COMPLIANCE AND ENFORCEMENT

CHAPTER 1 FLIGHT STANDARDS SERVICE COMPLIANCE POLICY

Section 2 Flight Standards Service Compliance Action Decision Procedure

14-1-2-1 GENERAL. The Federal Aviation Administration's (FAA) central mission is to promote safety in civil aeronautics. The agency establishes regulatory standards and requirements in Title 14 of the Code of Federal Regulations (14 CFR) parts 1 through 199 under the statutory authority in Title 49 of the United States Code (49 U.S.C.), Subtitle VII. Under 49 U.S.C. § 40113, the FAA Administrator has broad authority to take action that the Administrator considers necessary to carry out his or her statutory responsibilities and powers relating to safety in air commerce, including conducting investigations; prescribing regulations, standards, and procedures; and issuing orders.

A. Purpose. This section provides the structure to guide Flight Standards Service (AFS) personnel through AFS compliance policy (CP) implementation. It outlines the process to address deviations from rules, standards, or procedures, resolve them, and return the individual or entity to full compliance. This decisionmaking structure requires an open and transparent exchange of safety information to correct noncompliance and ensure that the risk of recurrence is acceptably mitigated. The exchange of information should occur during interviews, in written statements, and in reviewing and providing supporting documentation, etc.

B. Scope. The use of Compliance Action (CA) is the initial means of addressing all alleged, suspected, or identified instances of noncompliance. (See paragraphs 14-1-2-7 and 14-1-2-9 for specific Aviation Safety Action Program (ASAP) and Voluntary Disclosure Reporting Program (VDRP) requirements). CAs will be used to correct all noncompliance and deviations until a determination is made that CA is not appropriate. This includes apparent violations of regulations and/or statutes as well as deviations from other established standards or procedures. AFS personnel must keep the following in mind during all interactions with airmen and entities:

1) Except as described herein, where older AFS policy conflicts with Volume 14, Chapter 1, Sections 1 and 2, this newer policy must be followed until the older policy is revised.

2) When in doubt as to the appropriate course of action or policy to follow, aviation safety inspectors (ASI) should work through their Front Line Managers (FLM) and office managers with the appropriate policy owners for clarification.

C. Background. Volume 14, Chapter 1, Section 1, provides important background and reference information on the FAA CP and the evolution of AFS CP and CA. Pilot's Bill of Rights (PBR) notification must be provided as described in Volume 14, Chapter 1, Section 1, subparagraph 14-1-1-11G, and Volume 14, Chapter 1, Section 3.

14-1-2-3 TASK PREREQUISITES AND SIGNIFICANT INTERFACES. This task requires use of critical thinking, working interdependently, and completion of formal and on-the-job training (OJT) for Compliance and Enforcement (or later replacement courses).

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A. Significant Interfaces:

- Airmen/organizations/others involved with the apparent noncompliance or deviation;
- FLMs and office managers;
- Principal inspectors (PI) and other certificate management personnel; and
- Policy owners.

B. References (current editions):

- Volume 1, Chapter 2, The Federal Aviation Administration and Flight Standards History, Organization, and Regulatory Responsibilities.
- Volume 1, Chapter 3, Inspector Responsibilities, Administration, Ethics and Conduct.
- Volume 3, Chapter 19, Section 14, Safety Assurance System: Remedial Training and Tracking–Part 121 Pilots.
- Volume 3, Chapter 60, Procedures for Aviation Safety Inspector Decisionmaking.
- Volume 5, Chapter 7, Reexamination of an Airman.
- Volume 7, Chapter 2, Instructions for Investigating a Vehicle/Pedestrian Deviation (V/PD) by a Mechanic Taxiing an Aircraft on an Airport's Movement Area, Section 1, General.
- Volume 10, Safety Assurance System Policy and Procedures.
- Volume 11, Chapter 1, Section 1, Voluntary Disclosure Reporting Program for Air Carriers and Regulated Entities.
- Volume 11, Chapter 2, Section 1, Safety Assurance System: Aviation Safety Action Program.
- Volume 14, Chapter 1, Flight Standards Service Compliance Policy.
- Volume 14, Chapter 2, Investigation and Enforcement-Related Tasks.
- Volume 14, Chapter 3, Special Considerations.
- Volume 14, Appendices.
- Volume 15, Chapter 6, Section 1, FAASTeam Program Manager/Regional FAASTeam Point of Contact Duties and Roles to Facilitate Remedial Training.
- FAA Notice N 8900.352, Aviation Safety Action Program (ASAP), Voluntary Disclosure Reporting Program (VDRP) and the New Compliance Philosophy.
- FAA Notice N 8900.343, Flight Standards Service Compliance Policy.
- FAA Order 8900.1: any task that identifies an apparent noncompliance or deviation.
- FAA Program Tracking and Reporting Subsystem (PTRS) Procedures Manual (PPM) (which includes information on releasability under the Freedom of Information Act (FOIA)): http://fsims.faa.gov/wdocs/other/ptrs_procedures_manual.htm.
- FOIA Exemptions Summary Sheet: https://my.faa.gov/content/dam/myfaa/org/staffoffices/afn/administration/foia/foia_tool_kit/worktools/FOIA-Exemptions-Summary.pdf.
- Pertinent Federal aviation statutes and regulations.

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C. Additional Policy Guidance (current editions):

- FAA Order 2150.3, FAA Compliance and Enforcement Program.
- FAA Order 8000.88, PRIA Guidance for FAA Inspectors.
- FAA Order 8000.373, Federal Aviation Administration Compliance Philosophy.

D. Definitions.

1) Actions for Organizations. This includes improvements to systems, procedures, operating practices, or training programs. This also includes restricting or removing authority through operations specifications (OpSpecs) to manage operational risk in the public interest, and communicating risk to the certificate holder. FAA actions for regulatory deviations may be documented in PTRS using the *752 "OTHER" or *753 "CONVENE SAT" CA activity numbers.

2) Additional Training. Any training for individuals remediated through their organization's approved training program, through another required training program for their job function or work environment (such as carrier or repair station employees receiving Security Identification Display Area (SIDA) or ramp driver training from the airport), or the FAA Safety Team (FAASTeam) remedial training (RT) process. See subparagraph 9) below for the definition of RT and Volume 14, Chapter 3, Section 2 for additional information.

3) Compliance Action (CA). Action taken by AFS personnel (not the certificate holder) to: 1) correct an airman/organization/noncertificated person's deviation from standards when the deviation was not a result of intentional, reckless, or criminal behavior, or a pattern of negative behaviors or performance; or 2) communicate nonregulatory safety hazards, risks, concerns, or recommendations. See subparagraph 14-1-2-7D1) for exclusions.

NOTE: Distinct CA PTRS records are only created to document regulatory deviations. When a nonregulatory or nonstatutory deviation or safety recommendation/concern is documented in the PTRS, it must be distinguished from regulatory/statutory deviations per subparagraph 14-1-2-9B. The recommendation/concern comment may be made in the PTRS or Safety Assurance System (SAS) record for the underlying activity which led to the discovery, or added to a related regulatory CA activity record.

4) Corrective Action. Action taken by airmen/organizations/noncertificated persons (not AFS personnel) to correct a noncompliance with a rule or deviations from standards or procedures and to mitigate hazards/risks.

5) Counseling. Oral or written counseling of airmen, organization personnel, or noncertificated National Airspace System (NAS) participants such as passengers. The common practice of counseling may be used by an ASI at any appropriate time to clarify a person's understanding and convey regulatory information, best practices, or safety concerns/issues, including the recommendation of additional training or education where no regulatory deviation occurred. However, PTRS CA Counseling *750 activity records are only created for deviations from statutory or regulatory standards.

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6) Education. Providing or making referrals to safety, training, or other aviation educational resources, such as those found at FAASafety.gov or other publicly available sources, to share best practices or recommend additional study in areas of identified risk. Education is recommended when knowledge, skill, or system/process improvements would be beneficial. It can be used in conjunction with a CA or Enforcement Action, or recommended when no regulatory/statutory deviation has occurred.

7) Enforcement Action. Formal administrative and legal enforcement actions taken in accordance with Volume 14, Chapter 2 and Order 2150.3. Enforcement Actions are not CAs as described in this order.

8) On-the-Spot Correction. A quick fix of a simple mistake or other apparent deviation which does not require additional followup. The fix must be observed or verified by the ASI. Examples include adding missing information or a signature to an incomplete form; retrieving a certificate from home or receiving temporary authority from the Airmen Certification Branch (AFS-760) before exercising certificate privileges; stowing luggage or equipment blocking an emergency exit; correcting an incorrect instrument setting; or installing missing fasteners. On-the-spot may be selected any time it is used within SAS; however, a PTRS CA on-the-spot *751 activity record is only created for deviations from statutory or regulatory standards.

9) Remedial Training (RT). A program authorized and described in Volume 15, Chapter 6, Section 1 that ASIs use for certificated airmen when training is the appropriate action to take for a deviation from statutory or regulatory standards. Requires coordination between the investigating ASI and the FAASTeam through office management. RT as defined above may not be utilized by an airman who was using his or her certificate subject to an approved training program at the time of the apparent deviation. Those airmen should be remediated through their organization's approved training program. See documentation instructions in subparagraph 14-1-2-9F4)h) and Volume 14, Chapter 3, Section 2 for additional information.

E. PTRS and SAS Reporting. CAs used to correct statutory or regulatory noncompliance must be recorded in PTRS using the activity numbers in subparagraph 14-1-2-9E. When SAS data collection and surveillance leads to discovery of a regulatory noncompliance, a PTRS record is required to document the CAs taken to correct the issue in addition to the SAS documentation required by Volume 10.

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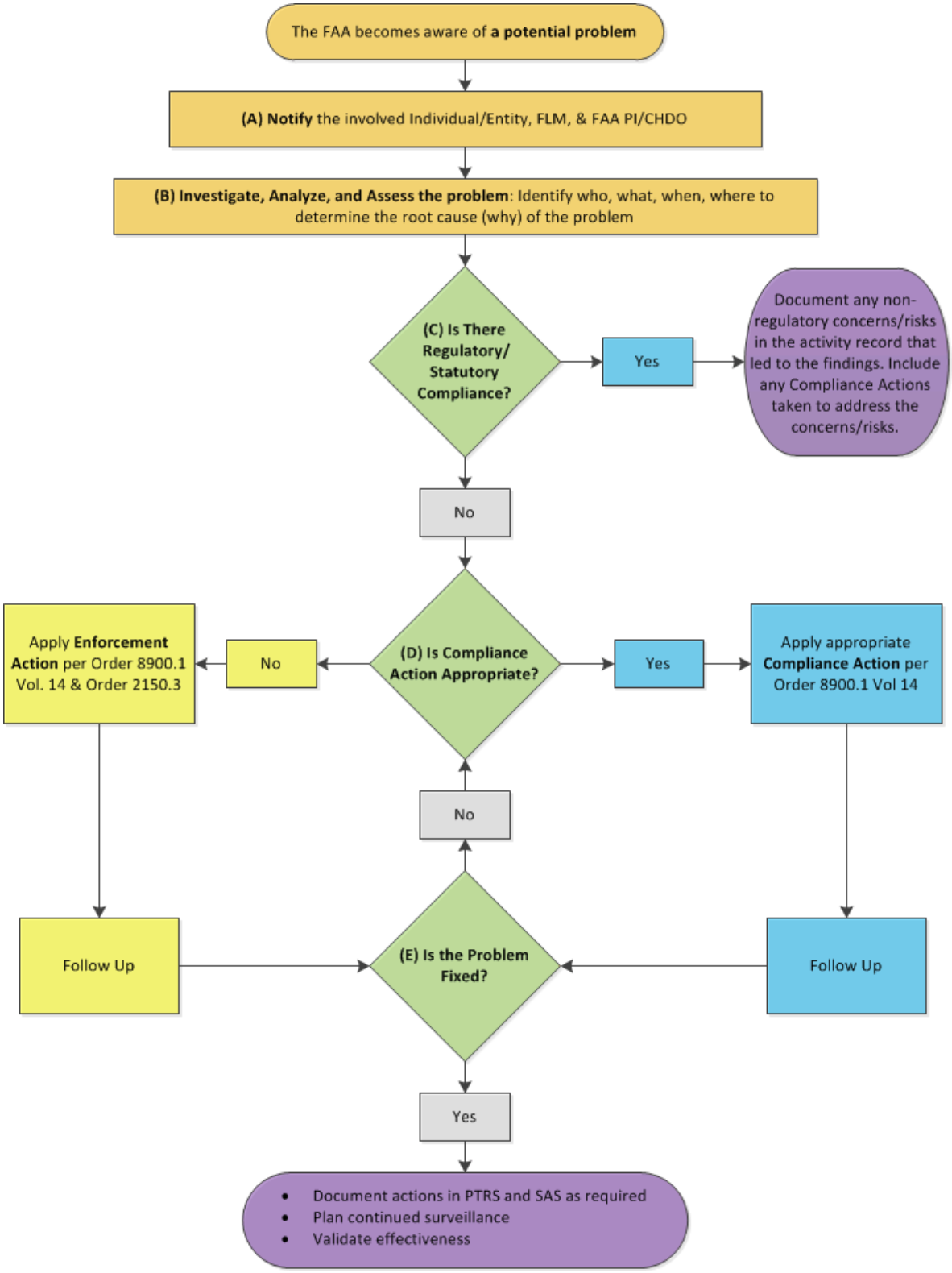
14-1-2-5 PROCESS FLOW MAP.

Figure 14-1-2A. Compliance Action Decision Process



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14-1-2-7 PROCEDURES.

A. Notification. Communication at initial notification should match the specific facts and circumstances. For example, the immediate verbal notification provided during a ramp check that results in an on-the-spot correction may be all that is necessary. However, significant safety hazards and ongoing operational risks discovered during surveillance of an organization would likely require immediate contact via telephone or other means, and be followed up in writing (through the PI, when appropriate).

1) Address Immediate Safety Concerns. ASIs should take immediate action to mitigate significant safety hazards and ongoing operational risks. Therefore, when an ASI becomes aware of an immediate safety concern, he or she must take timely steps to notify the airman or responsible person who can take the appropriate action to prevent it from continuing.

2) Non-Immediate Issues. ASIs have more time to fully understand actual or apparent deviations that have terminated (e.g., pilot deviations) where no immediate threat to the NAS exists. In these cases, the ASI may exercise judgment on whether or not it is prudent to immediately contact the airman or responsible person.

3) PBR. For transparency, a CP and PBR Brochure (see Appendix 14-1, Compliance Philosophy and Pilot's Bill of Rights Brochure) has been developed and must be used when conducting CA investigations. Formal notification with a Letter of Investigation (LOI) (including PBR text for airmen) is only required for Enforcement Action (see Volume 14, Chapter 1, Section 1, subparagraph 14-1-1-11G and Volume 14, Chapter 1, Section 3, for due process and CP/PBR Brochure).

4) Coordination. If the event involves an organization, the ASI must notify the appropriate oversight office concerning the noncompliance and any action that was taken to address an immediate safety concern. The oversight office may take over and continue the appropriate process. In all cases, ASIs should work interdependently, keep their FLM informed appropriately, and coordinate any follow-up communication with the PI/certificate-holding district office (CHDO).

5) Checking Compliance History. ASIs must check surveillance, CA, and enforcement histories of certificated and noncertificated persons/entities prior to making or communicating final CA decisions. This does not preclude an ASI from making an on-the-spot-correction or providing immediate counseling. In all cases, the ASI must inform the person/entity that further action may be required after history is checked.

6) Timely Processing. In all cases, the goal is to restore compliance now and for the future. Regardless of whether the event requires immediate notification to the regulated entity, the remaining procedures in this section should be completed in a timely manner. When addressing regulatory and/or statutory noncompliance, it is important to determine eligibility for CA as early as possible and to determine the appropriate type of correspondence needed with the airman/entity. For airmen, the National Transportation Safety Board (NTSB) 6-month-stale complaint rule[18] applies if certificate action is to be taken. The ASI should keep their FLM

[18] Refer to Title 49 of the Code of Federal Regulations (49 CFR) § 821.33.

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informed of their activities and, when applicable, coordinate certificate holder communication with the PI/CHDO.

7) ASAP Considerations. The investigating ASI must determine whether the entity has an ASAP covering an involved employee group by accessing the AFS ASAP Web page at http://www.faa.gov/about/initiatives/asap/media/asap_participants.pdf. See Volume 11, Chapter 2, Section 1 for more CHDO coordination information.

8) Initial Documentation Considerations. When FAA action is necessary to correct a regulatory deviation, the appropriate CA or Enforcement Action PTRS record should be created (although not necessarily completed) within 3 business days of the ASI's determination per PPM guidelines.[19]

B. Investigate, Analyze, and Assess the Problem. The procedures in this paragraph are designed to aid in the Root Cause Analysis (RCA) of the apparent deviation. FAA safety personnel must identify who did what, where, when, and why. Determining why the event happened and identifying the underlying root cause(s) is the purpose of the investigation. Compliance will only be ensured if the cause(s) of the event are clearly established, understood, and corrected. When a regulatory deviation is identified and associated with an entity, the ASI must consult with the PI/CHDO to make this assessment, or provide information for the PI/CHDO to make the assessment.

NOTE: ASIs must continue to gather information and remain engaged with the responsible parties in order to conduct a thorough and unbiased investigation.

1) Gather the Facts. Consider taking the following suggested actions, based on the ASI's determination of the information needed in each specific situation. This list is neither mandatory nor all-inclusive:

a) Reviewing records, including air traffic control (ATC) forms and data from the Knowledge Services Network (KSN).

b) Reviewing technical documents (e.g., manufacturer's maintenance manuals, Airplane Flight Manual (AFM), or Rotorcraft Flight Manual (RFM)).

c) Interviewing the party or parties involved (acquiring witness statements, if necessary).

d) Acquiring technical information from other agencies (e.g., the National Weather Service (NWS) and ATC).

e) Inspecting and taking photographs of items associated with the event, including physical evidence such as skid marks or damaged parts.

[19] Refer to the PPM, chapter 2, section 2, subparagraph 3F.

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2) Ask the Questions. Consider the following suggested lines of inquiry, based on the ASI's determination of the information needed in each specific situation. This list is neither mandatory nor all-inclusive:

a) Objective description of the event: what happened?

b) What possible outcome(s) could have resulted?

c) Why did the people involved select that course of action?

d) What was the operation being done or attempted?

e) What was the expected process/procedure?

f) What information was available to the individual(s) involved about the task/operation?

g) What were the conditions?

- Workload;
- Task complexity;
- Distractions;
- Personal and organization interfaces;
- Physical working environment;
- Competency of individual(s) involved (i.e., knowledge, training, experience related to the task/operation);
- Availability, quality, and clarity of technical and procedural information;
- Availability of supervision or consultation with others;
- Adequacy of resources (e.g., tools, facilities, personnel, supplies);
- Constraints (equipment; time; environmental conditions; other rules, e.g., environmental, occupational); and
- External pressures (e.g., time pressure, production, service demands, and organizational policies).

h) What controls were in place?

- Controls that could have prevented the error/failure; and
- Remaining controls that prevented the error/failure from having a more severe outcome.

i) Why were the controls that failed ineffective (in the opinion of the interviewee or the evaluator conducting the analysis)?

j) Recommendations for improvement (in the opinion of the interviewee or the evaluator conducting the analysis).

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3) Analyze the Event.

a) Critical thinking involving careful, objective analysis is the key to understanding the event. Analysis of each event should focus on determining the nature of the problem, the conditions under which it occurred, the controls that failed (and may fail again in the future), and the most effective proposed corrective action(s).

b) Before deciding on CA as the mitigation, determine if the airman/organization is proactive, cooperative, and capable of participating in effective corrective or preventive action. An inability to comply requires a more formal process of correction.

NOTE: An entity's refusal to speak with the FAA, or the obtaining of legal counsel, does not automatically rule out CA. Airmen and organizations are free to exercise their rights without repercussions. An entity that complies with FAA requirements to regain and maintain compliance is considered cooperative. However, if the ASI cannot adequately determine the facts of the case, or cannot identify appropriate remediation(s) that are consented to and successfully accomplished by the involved parties, the ASI must still use due diligence on behalf of the public's safety interest. Such due diligence may include reexamination, re-inspection, or suspension pending compliance to determine that the certificated entity is qualified, competent, and proficient.

c) The determination must be based reasonably on observable behaviors and the facts and circumstances in each case.

- Does the airman/organization consistently perform in a positive manner toward regulatory requirements?
- Does the airman/organization understand or recognize its role in the deviation?
- Does the airman/organization cooperate with FAA personnel to achieve compliance?
- Does the airman/organization take the necessary actions to come into and maintain compliance?
- Are there repeated failures to take corrective actions or repeated deviations?
- Is the airman/organization noncompliant in more than one area? Does it involve multiple personnel?

NOTE: The fact that multiple areas or personnel are involved may indicate a management or system failure (unsatisfactory supervision/procedures, misplaced priorities, goal conflicts, etc.).

d) ASIs should assess all available facts and circumstances associated with *current* and *previous* deviations. ASIs should evaluate the event for possible systemic issues; this is particularly important for a frequently cited regulation.

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e) Depending upon the specific circumstances associated with each event, repeated deviations from the same regulation may not indicate a common systemic failure. Often on the surface it appears that the same regulation is being repeatedly violated due to the broadly defined wording of most regulations. However, every situation has a unique set of facts. A review of the specific circumstances may find that the deviations are due to entirely different causes.

f) Effective corrective action begins by clearly defining the real problem. Additional CA can be taken in cases where the actual root cause was not previously identified and addressed. Recurring findings often happen because an organization:

1. Solved the wrong problem;

2. Fixed the outcome only;

3. Fixed the symptoms only; or

4. Corrected only one problem, when two or more problems exist.

C. Is There Compliance? Once the problem is completely understood, review the regulations applicable to the event. The following question can now be answered: Is there regulatory and statutory compliance?

1) If Yes (A Regulatory/Statutory Deviation *Did Not* Occur). The CP and policy should be applied to address safety concerns in the NAS where no clear regulatory requirement exists.[20] AFS personnel can communicate or transfer risks and make recommendations to regulated and nonregulated entities and document those AFS actions as described in this section. Document these nonregulatory concerns, potential risks, or recommendations in the PTRS (and/or SAS as appropriate) within the activity that led to the discovery per subparagraph 14-1-2-9B. Include all ASI and/or certificate holder actions to communicate or transfer the concerns/potential risks and to correct the identified problem(s). Coordinate communication to the certificate holder with the PI/CHDO and notify the PI, CHDO, and/or the FLM of any concerns or risks. In communications with the certificate holder, clearly identify that FAA concerns/recommendations are to make improvements or use best practices, but they are not regulatory requirements.

2) If No (A Regulatory/Statutory Deviation *Did* Occur). Determine the most efficient and effective course of action to reestablish compliance. CA should be used if the individual or entity sufficiently meets the criteria of subparagraph 14-1-2-7B3) above, and the noncompliance does not entail intentional, reckless, or criminal behavior (see Volume 14, Chapter 1, Section 1, subparagraph 14-1-1-7E).

[20] From Volume 1, Chapter 2, Section 3, subparagraph 1-141C, also consider submitting "safety recommendations in accordance with the procedures outlined in FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting. If the safety recommendation proposes rulemaking, inclusion of the information required by 14 CFR part 11, § 11.25 aids the appropriate FAA office in responding to the recommendation."

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3) Additional Considerations.

a) For events that have ceased, the question, "Was There Regulatory/Statutory Compliance," is still appropriate to ask in this step. The noncompliance does not have to be occurring at the present time in order for a CA to be documented.

b) There may be instances where an ASI becomes aware of a deviation that has occurred after the airman or responsible person has taken steps to address the noncompliance and prevent its reoccurrence. The procedures in this section must still be completed (in coordination with the PI/CHDO, when applicable) to decide if the appropriate fix to the problem has been applied, to determine if any validation or followup surveillance is needed, and to document the issue.

1. If sufficient corrective action has been taken or implemented by the airman or responsible person, the ASI can document the action(s) using the *752 "Other" PTRS activity code.

2. Determine whether additional validation or followup surveillance is needed and plan/document accordingly. This should be done in coordination with the PI/CHDO when applicable.

3. If the corrective action taken by the airman or responsible person is not adequate to the address the underlying root cause(s) of the noncompliance, the ASI may take additional action as described in this section.

D. Is CA Appropriate?

1) Potential Exclusions. CA may not be appropriate based on the specific facts of the event under review, or because of other policies or commitments that require a different agency response, as described in Volume 14, Chapter 1, Section 1 and this section. AFS must follow policy and process commitments made to Congress, the Inspector General (IG), and other external parties. Examples include, but are not limited to, Airworthiness Directives (AD),[21] ASAPs,[22] Aviation Safety Reporting Program (ASRP),[23] flight operations quality assurance (FOQA),[24] all noncompliance by military and foreign pilots,[25] Special Emphasis Enforcement Programs,[26] and VDRPs.[27] See subparagraphs 14-1-2-7A7) and 14-1-2-9A for additional ASAP and VDRP requirements, and Volume 14, Chapter 1, Section 1, subparagraph 14-1-1-7E on enforcement action.

[21] See Volume 3, Chapter 60, Section 1.
[22] See Volume 11, Chapter 2, Section 1.
[23] Refer to Order 2150.3, Chapter 2, Compliance and Enforcement Policy and Objectives.
[24] See Volume 11, Chapter 2, Section 2.
[25] See Volume 7, Chapter 1, Section 2.
[26] Refer to Order 2150.3, Chapters 2; 7, Sanction Guidance Policies; and Appendix H, Compliance and Enforcement Bulletins.
[27] See Volume 11, Chapter 1, Section 1.

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2) If Yes (CA *Is* Appropriate). Take appropriate CA, such as:

a) On-the-spot correction, counseling, or education;

b) Additional training (requires interface with PI/CHDO when applicable), or RT for airmen;

c) Improvements to systems, procedures, operational practices, or training programs for regulated entities (requires interface with PI/CHDO);

d) Documenting corrective action that may have already been initiated or implemented by the airman or entity; and

e) Any other action that would correct the noncompliance and address the underlying safety concern.

3) If No (CA *Is Not* Appropriate). Take appropriate action. Refer to Volume 14, Chapter 2, and Order 2150.3 to initiate Enforcement Action.

E. Is the Problem Fixed?

1) Plan Followup Surveillance Activities. The ASI will validate CA, or Enforcement Action, effectiveness when necessary.

a) Followup is normally not needed for simple mistakes, lack of understanding, or diminished skills which have been corrected with on-the-spot corrections, oral/written counseling, or (for General Aviation (GA) airmen) RT completed per Volume 15, Chapter 6.

b) Company program, manual, or procedure changes normally require followup to validate that the change is put in place and that it has the intended result (coordinate with the PI/CHDO). If followup activities have been created and linked to the original CA or Enforcement Action record in comments and there is no other reason to keep the original record open, the original record may be closed.

c) The ASI must consult on proper followup and documentation with his or her FLM when complex or long-term followup is needed, and with the appropriate PI/CHDO when an air agency/carrier/operator or Letter of Authorization (LOA) holder is involved.

2) If Yes (The Problem *Is* Fixed). Close the CA PTRS with documentation, as described in paragraph 14-1-2-9.

3) If No (The Problem *Is Not* Fixed). Is further CA appropriate and warranted?

a) If yes, document within PTRS the additional compliance actions necessary to ensure the effectiveness of root cause fixes. Continue followup.

b) If no, then an unsuccessful CA has occurred (e.g., the airman chooses not to participate, is unable to take effective corrective action, or new information/behavior makes

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CA inappropriate). Terminate the CA PTRS record and initiate Enforcement Action in accordance with Volume 14, Chapter 2, and Order 2150.3. Trigger the enforcement PTRS record from the CA PTRS record. (See additional PTRS documentation requirements in paragraph 14-1-2-9.) Regardless of the enforcement action outcome, continue communicating with the certificate holder to mitigate the safety issues involved to an acceptable level (i.e., return the certificate holder to compliance and prevent recurrence).

NOTE: Unless opened in error (see subparagraph 14-1-2-9K), a terminated CA requires Enforcement Action. (See Volume 14, Chapter 1, Section 1, subparagraph 14-1-1-11G and Chapter 1, Section 3 for CP/PBR Brochure and due process considerations and subparagraph 14-1-2-9I for additional policy on Compliance Actions with Unsuccessful Corrective Action Completion.)

F. External Communication/Correspondence. The steps discussed in the CA Decision Process (CADP) are meant as an aid for addressing noncompliance. Based on the particulars of each case, AFS personnel are expected to use the most efficient and effective means to find and fix the safety issue(s). AFS personnel must use critical thinking and interdependence to determine the appropriate level of external communication/correspondence necessary for each situation and the specific facts involved. Refer to the communication/correspondence guidelines in Appendix 14-3, Compliance Action Communication/Correspondence Guidelines.

1) The following information must be conveyed during verbal communications and/or written correspondence concerning a CA (except when there is repeated communication/correspondence with the same entity and the information below has already been conveyed):

a) Initial communication and/or correspondence:

1. A statement that the event appears eligible (or may be eligible) for CA.

2. A statement that enforcement action is not being pursued based on known information.

b) Completion of a CA. A statement that the event has been closed as a CA describing the type of action taken.

2) Corrective actions that take time or are complex in nature should be documented in writing (email or letter as appropriate to the facts and circumstances), including FAA expectations and clear suspense dates for responses.

3) Communication/Correspondence to an organizational entity that extend beyond addressing the immediate safety concerns must be coordinated with the appropriate PI/CHDO.

4) If an email or letter is sent to an individual (not an organizational entity) requesting information, the CP/PBR Brochure (see Appendix 14-1) and the Privacy Act Notice (see Appendix 14-2, Privacy Act Notice) should be included.

5) Follow existing AFS and office policies for correspondence and record retention.

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NOTE: Under the current expunction policy and retention schedule, there is no authority to destroy records related to CAs.

14-1-2-9 PTRS/SAS CA RECORD DOCUMENTATION REQUIREMENTS.

A. ASAP and VDRP Data Protected from Disclosure. An impediment to further development of voluntary information sharing programs is the reluctance of some persons to share information that may later be released through a FOIA request or other means. For that reason, the legal protections cited below were put in place.

1) All records submitted to the FAA for review regarding ASAP, including information predicated upon the ASAP report, are protected from release to the public in accordance with the provisions of the current edition of FAA Order 8000.82, Designation of Aviation Safety Action Program (ASAP) Information as Protected from Public Disclosure under 14 CFR Part 193.

2) All records submitted to the FAA for review regarding VDRP, including information submitted via the Web-based VDRP system, are protected from release to the public in accordance with the provisions of the current edition of FAA Order 8000.89, Designation of Voluntary Disclosure Reporting Program (VDRP) Information as Protected from Public Disclosure under 14 CFR Part 193.

3) For the reasons cited above, no CA PTRS records will be completed for an accepted ASAP or VDRP event. ASAP and VDRP corrective actions documentation and PTRS requirements for accepted and excluded reports are detailed in Volume 11 and Volume 14, Chapter 3, Section 12. Additional information on ASAP and VDRP documentation is found in N 8900.352.

B. Documentation for Nonregulatory/Nonstatutory Deviations. As noted in Figure 14-1-2A, Compliance Action Decision Process, there is the potential for an ASI to have concerns or recommendations, following a surveillance or other encounter with an airman or other entity, that do not involve regulatory or statutory noncompliance.

1) If there are no other regulatory/statutory findings, do not create a CA PTRS record. These concerns/recommendations are documented in the primary activity record (in the appropriate SAS comment field as described in the next paragraph, or in the surveillance or other PTRS record). In both SAS and PTRS, clearly identify and document these nonregulatory concerns/recommendations in a comment (in PTRS, using a separate comment with the appropriate primary area code, a keyword list of “911,” and an opinion code of “I”). If CA is taken for other regulatory or statutory findings, additional concerns/recommendations may be documented in the same CA PTRS record in a separate comment coded as described above. Documenting these concerns will help the FAA identify potentially systemic issues during future activities.

2) Nonregulatory safety concerns and/or recommendations with no apparent regulatory or statutory deviation are documented in the SAS record for the underlying activity that led to identification of the concern (such as a Design Assessment (DA)/Performance

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Assessment (PA) or random inspection (RI)) in accordance with Volume 10 policy using the "Inspector Action Taken" field when available, or the "Supporting Comments" field.

3) See additional documentation requirements in subparagraph 14-1-2-9F below.

C. General Requirements for Documenting Regulatory/Statutory Deviations. All CAs for regulatory or statutory deviations (by all ASIs, including those primarily using SAS) will be documented with a PTRS record using the activity numbers in subparagraph 14-1-2-9E and as outlined in the PPM. A distinct PTRS record will be created for each airman and organization involved. Multiple specific CAs for the same airman/entity may be used when appropriate. If at least one specific CA activity number is used, any additional actions for the same certificate holder or person may be documented with separate comments in the same PTRS record.

1) When a CA PTRS is completed, the comments must provide a description of the problem, the overall planned corrective action, and show how the deviation was permanently fixed, which may require linking the record to future followup activities.

2) ASIs must make quality entries and FLMs must verify that all CAs recorded in PTRS answer the questions of "Who, What, When, Where, and Why,"[28] including each root cause that led to the deviation. Once the cause(s) are clearly identified and documented, the comments must document the immediate as well as long-term corrective actions (see subparagraphs 14-1-2-7E1) and 14-1-2-9H for discussion of followup). Documentation must be clear and stand alone in later history searches, showing the noncompliance stopped and that any fixes put in place to prevent recurrence were effective. The answers to these questions and requirements should be readily identifiable. A complete and comprehensive report demonstrates that a quality work activity was performed.

D. Multiple Records Requirement. PTRS records used to document the CA are not a replacement for the record used to document the primary activity (such as surveillance or accident investigation) during which the deviation was found.

1) If an ASI finds a deviation during (for example) a routine facility inspection (other than a joint audit per Volume 11) and determines that CA is appropriate to address the deviation, then the ASI would complete a PTRS record for both the facility inspection and the CA.

a) The PTRS generated for the CA should be triggered from the PTRS record for the primary activity. The parent transmittal record ID number will appear automatically in the "Related Record" field of the triggered CA record.

b) The ASI must manually enter tracking of triggered record(s) in the parent record. The activity number(s)/record ID(s) of the triggered record(s) should be entered in the comment section using the appropriate Primary Area, Keyword "907," and Opinion Code "I,"

[28] Refer to the PPM, chapter 4, section 2, paragraph 2.

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per the PPM, Chapter 4, Recording PTRS Activities. Refer also to the PPM, Appendix B, How to Tie Records to Their Followups, for triggering and linking records.

c) The parent surveillance or other PTRS record which led to the discovery is closed with a results code of "F" for followup when CA(s) is (are) taken. The parent record may be closed before the CA is completed.

d) If, however, any enforcement action is taken as an initial result of the parent activity, the parent PTRS record is closed with a results code of "E" for enforcement. Multiple actions for one event, such as separate enforcement actions for a company and captain and a CA for a first officer, are triggered (if possible) from the same parent PTRS record.

2) There may be instances where it is appropriate to take a CA to address noncompliance for an organization, and, additionally, take CA for personnel working for that organization. Separate CA PTRS entries are created for each entity or person that receives a CA. If possible, trigger the CA PTRS records from the single parent record as described in the paragraph above. Coordinate any followup and non-immediate communication with the PI/CHDO when applicable.

E. Appropriate Activity Code. Choose the appropriate PTRS INVESTG/COMPLIANCE ACTION to document responses to the regulatory or statutory deviations. (See subparagraph 14-1-2-9B for documenting nonregulatory responses.) See definitions in subparagraph 14-1-2-3D for additional information. Activity Numbers are as follows, with the asterisks representing a 1, 3, or 5 (Operations 1000-series, Maintenance 3000-series, and Avionics 5000-series):

NOTE: CA PTRS records will not be created for accepted ASAP or VDRP reports.

1) *749 Additional Training. All additional training processes documented by non-FAASTeam ASIs per this order. See Volume 14, Chapter 3, Section 2, for additional information and see RT documentation instructions in subparagraph 14-1-2-9F4)h).

2) *750 Counseling. Applies to any person participating in the NAS. Used to document oral or written counseling of individuals for deviations from regulatory or statutory standards.

3) *751 On-the-Spot Correction. Used to document correction of regulatory or statutory deviations that meet the subparagraph 14-1-2-3D definition.

4) *752 Other. For regulatory CAs that do not fit in another specific category. May also be used when appropriate to document corrective action(s) initiated or completed by airmen/organizations prior to the FAA's discovery of the deviation.

5) *753 Convene SAT. Used by SAS ASIs only when choosing to convene a System Analysis Team (SAT) in response to a safety concern or deviation.

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F. Required Fields. Complete all required fields in the PTRS record and include the following information in accordance with the PPM chapter 4.

NOTE: Unless discovered and documented in SAS as described in subparagraph 14-1-2-9G, nonregulatory safety concerns and/or recommendations with no apparent regulatory or statutory deviation are documented in the PTRS record for the activity that led to the discovery using the same criteria below for regulatory noncompliance, except where noted below.

1) Section I: "Who" was involved; the four-letter designator for an entity or the certificate number and name for an individual airman.

2) Section II: Include additional relevant personnel information (such as an instructor or additional crewmember involved) as described in the PPM at page 4-17, subparagraph B, including any certificate number(s) in the "Remarks" field (additional "Who" involved).

3) Section III: Include any relevant information.

4) Section IV: Include comments which document the following:

a) "What" happened: Describe the noncompliance event, the specific regulatory requirement (SRR) (including the rule or statute citation), and how the requirement was not met. Include additional "When" and "Where" details not captured in Section I, and explain the role of all personnel involved or listed in Section II. For nonregulatory safety issues, concerns, or recommendations, the SRR is not required; describe what happened to raise the issue.

b) All identified hazards or ineffective risk controls, including behaviors, that led to the issue.

c) (Regulatory findings only.) "Why" it happened: A brief summary of the analysis and a listing of the underlying root cause(s) that resulted in noncompliance. The ASI should critically review and validate any analysis or root cause(s) provided by a certificate holder.

d) The mitigating or corrective action(s) taken by the person/entity to correct the problem, if any, and when those action(s) were taken.

e) (Regulatory findings only.) Whether the person/entity completed all corrective action(s) to the FAA's satisfaction.

f) Whether any other FAA action was taken or is still required (additional followup, reexamination/re-inspection, enforcement, etc.), including the ASI's recommendations on the controls, monitoring, and feedback required to mitigate risks and ensure compliance.

g) If applicable, document use of SAS risk management process (RMP) or SAT. See the definition in subparagraph 14-1-2-9G2) specific to the "Convene SAT" PTRS activity.

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h) If used, RT under Volume 15 must be noted in the *749 "Additional Training" CA PTRS record comment section, including details of the referring ASI's offer of RT and acceptance by the airman and the FAASTeam Program Manager's (FPM)/Regional FAASTeam Point of Contact's (RFPOC) *950 PTRS activity's full record ID number. The referring ASI's record must remain open until the RT process outcome is known from the FPM/RFPOC and documented by the ASI in the "Additional Training" record. Refer to Volume 14, Chapter 3, Section 2, and Volume 15, Chapter 6, Section 1 for additional instructions.

i) If applicable, related PTRS records must be linked with coded comments per subparagraph 14-1-2-9D1) above (keyword "907-I").

j) When completed, ASIs should review the record(s) and subparagraphs 14-1-2-9C1) and 14-1-2-9C2) to verify they have completed an adequate compliance history record for future review as to what the problem was and how it was fixed.

G. SAS Instructions. CA PTRS records recorded in SAS comment fields will include "CAPTRS" (without quotes or spaces) and the full record transmittal ID number as shown in this example: CAPTRSEA61201512345.

CAPTRS	EA61	2015	12345
Compliance Action PTRS	Office Code	Year created	Unique record identifier

1) SAS users must use CA and document PTRS numbers in accordance with Volume 10, Chapters 5 and 6, and Volume 14.

2) If a SAT is used, create a "Convene SAT" PTRS record with sufficient comments to describe the reason for convening the SAT and to locate the SAT record in SAS. SAT activities and outcomes only need to be documented in SAS, not the PTRS record. This will provide PI visibility to the CA within the SAS data, and also office/national visibility for identified concerns within the PTRS data.

3) All SAS ASIs directly conducting surveillance (Module 4, including principal and non-principal personnel) should take appropriate CAs (such as on-the-spot corrections) for regulatory deviations when and where issues are identified. Use the "Inspector Action Taken" field, if available in the Data Collection Tool (DCT) being used, to describe the issue and include CAPTRS and the full PTRS record ID number for CA taken. If that field is not available (i.e., in a Random, En Route, or Custom DCT), use the "Supporting Comments" field. In all instances, the important thing is to fix the immediate safety issue and document it per general Volume 14, Chapter 1, Section 2 and Volume 10 guidance in PTRS. Notify the PI per Volume 10, Chapter 5, Section 1.

4) PI: During Module 5 Analysis, Assessment, and Action (AAA), the PI identifies issues requiring action/followup and tracks them with the Action Item Tracking Tool (AITT), which may include a CAPTRS created and entered in Module 4 by the PI or another ASI. When a PI identifies a new regulatory deviation from AAA requiring additional action or followup, the PI creates a new CA record and enters "CAPTRS" and the full PTRS record ID number in the AITT in the "Explanation" field, under "Action Justification." When the PI assesses a regulatory deviation has occurred and selects either a "3 Regulatory Issues"

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or "4 Regulatory/Systemic Issues," then the "Action Justification" field and the AITT must contain the PTRS record transmittal ID. See Volume 10, Chapter 6, Section 2.

H. Followup Surveillance Activities. When additional followup is required and is able to be completed soon by the discovering ASI, the initial CA PTRS record can remain open to document any short- or mid-term followup validation required. For complex or long-term followup, trigger (if possible) any additional followup surveillance activities needed to validate CA effectiveness from the CA PTRS record, then close the CA record as completed with a comment linking it to the planned follow-up activity. (See step E in Figure 14-1-2A.)

1) If followup confirms compliance, close the PTRS. Document SAS records as described above and in accordance with Volume 10 policy.

2) If followup fails to confirm full compliance has been restored, reevaluate if CA or Enforcement Action is appropriate. (See step E in Figure 14-1-2A and subparagraphs 14-1-2-7D and 14-1-2-7E above.)

I. CAs with Unsuccessful Corrective Action Completion.

1) If agreed-upon corrective action(s) were implemented but failed to achieve their intended purpose, revised or additional corrective actions should be developed and implemented. This is a normal and expected process that should be documented in either the original CA PTRS record comments or in the comments of triggered followup surveillance PTRS.

2) When the airman/entity fails to complete agreed-upon corrective actions to the FAA's satisfaction, the ASI documents the situation as follows:

a) Provide the details in the CA PTRS as described in subparagraph 14-1-2-9F4).

b) Terminate the CA PTRS record with a "T" in the results code.

c) Trigger any resulting Enforcement Action PTRS record from the parent CA PTRS record.

d) Link the records per subparagraph 14-1-2-9D).

e) Document related FAA and certificate holder mitigation actions in the enforcement PTRS record.

J. Data Quality Guidelines, Review, and Job Aid.

1) ASIs must make timely entries that meet the criteria in subparagraph 14-1-2-9F and answer the questions of "Who, What, When, Where, and Why" as described in the PPM. A complete and comprehensive report demonstrates that a quality work activity was performed.

2) FLMs, or other delegated personnel, must review all regulatory/statutory CA records to assure policy is followed and that records are clear and complete enough to stand alone as useful information when accessed in the future. The answers to the questions and

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requirements in subparagraphs 14-1-2-9C and F should be readily identifiable to others without first-hand experience with the facts.

3) Appendix 14-4, Compliance Action Documentation Review Job Aid, contains a job aid and additional references to assist the ASI in creating quality entries, help others perform efficient reviews, and provide a standardized mechanism for providing feedback concerning documentation requirements.

K. CA Records Opened in Error. If a PTRS record is opened in error, terminate the CA. This may be done when the identified noncompliance is later proven incorrect, when a requirement to take enforcement action is later discovered, or for other reasons requiring the activity to be terminated.

1) Close the PTRS record with a "T" in the results code.

2) Provide with explanatory comments including applicable parts of subparagraphs 14-1-2-9F4f), i), and j). The rest of subparagraph 14-1-2-9F4) no longer applies.

14-1-2-11 TASK OUTCOMES. The completion of this task results in:

- ASIs using critical thinking and working interdependently to find and fix safety problems in the NAS as efficiently and effectively as possible;
- Conserving FAA resources by using the most effective means to return an individual or entity that holds an FAA certificate, approval, authorization, or license to full compliance and to prevent recurrence;
- Increased cooperation from airmen and entities when interacting with ASIs; and
- Increased voluntary compliance with FAA regulations.

14-1-2-13 FUTURE ACTIVITIES.

A. Analysis and Interdependence. "ASIs should continually analyze data available on their assigned [certificates for] trends, findings or problem areas that may point to issues regarding compliance and that may require corrective actions. Inspectors should also make recommendations to management for changes in [surveillance plans and policies] if adverse patterns, trends, or problem areas are discovered. Inspectors should coordinate their findings with the supervisor and office manager [and the PI/CHDO, when applicable] when potential adverse safety data is detected and make adjustments to their work program as necessary."[29]

B. Enforcement Cases Reconsideration. There may instances where initiated enforcement cases are later determined to be eligible for CA. See Appendix 14-5, Guidance for Review of Enforcement Cases Under the FAA's Compliance Philosophy, for additional guidance.

[29] Refer to the PPM, chapter 2, section 2, subparagraph 4C.

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C. Other Activities:

- Continue followup when appropriate to validate that airman/organization corrective actions were effective;
- Search the National PTRS (NPTRS) data for prior CA records and other record keyword 907/911 comments when responding to new suspected or actual airman/organization noncompliance or deviations;
- Review SAS Module 4 and 5 reports and the Short Term Solutions (STS) Reports, especially the SAS Compliance and Enforcement Action Comprehensive Report. Periodic review of these reports can help identify SAS documented CA data. (See Volume 10, Chapter 6, Section 1); and
- Initiate Enforcement Action when CA is not appropriate or effective.

14-1-2-15 through 14-1-2-29 RESERVED.

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VOLUME 14 COMPLIANCE AND ENFORCEMENT

CHAPTER 1 FLIGHT STANDARDS SERVICE COMPLIANCE POLICY

Section 3 Providing Written Compliance Philosophy Explanation and Pilot's Bill of Rights Notification

14-1-3-1 GENERAL. This section supersedes and cancels the policy formerly in Volume 7, Chapter 8, Section 1, General, and the older Volume 14 and 15 references to Public Law (PL) 112-153, Pilot's Bill of Rights Act (PBR or "the Act"). This section conforms Flight Standards Service (AFS) PBR policy to Federal Aviation Administration (FAA) Compliance Philosophy (CP); adds information on the new CP and PBR Brochure (hereinafter, "the Brochure"); and clarifies AFS policy on proactive CP information sharing (safety promotion) and PBR compliance requirements. This section takes precedence over any older AFS PBR policy until the older policies are revised to conform to this section.

A. Purpose. This section provides guidance on using the Brochure and providing airmen with air traffic data under PBR. It also provides guidance on the written notification required by the PBR to be provided to individuals who are the subject of an investigation relating to the approval, denial, suspension, modification, or revocation of an Airman Certificate under Title 49 of the United States Code (49 U.S.C.) chapter 447.

B. Scope. This guidance applies to all AFS safety promotion activities (including any airman contacts, safety seminars, and aviation events); investigations of an individual's qualifications to hold an Airman Certificate or rating (including review of submitted applications and reexamination of an airman's qualifications) under Volume 5; and investigations related to an individual airman's apparent deviation from requirements in 49 U.S.C and Title 14 of the Code of Federal Regulations (14 CFR). FAA 8000-series forms containing PBR information (such as FAA Form 8710-1, Airman Certificate and/or Rating Application) are not affected by this change. Forms without PBR information (such as FAA Form 8610-1, Mechanic's Application for Inspection Authorization, at the time of this section's publication) must be accompanied by the PBR information as described in paragraph 14-1-3-9 until the older forms are revised.

> NOTE: The PBR requires that airmen be provided with *written notification*. Verbal notification does not comply with the law. See paragraph 14-1-3-7 for specific instructions on use of the Brochure to meet the written notification requirement.

14-1-3-3 BACKGROUND. On August 3, 2012, the PBR became effective, requiring the FAA to provide certain timely written notifications to individuals who are the subject of an investigation relating to a certificate suspension, revocation, or modification action or the approval or denial of an Airman Certificate. The law also requires that the FAA provide such individuals timely access to the air traffic data as described in paragraph 14-1-3-7 that would facilitate the individual's ability to productively participate in a proceeding relating to such an investigation.

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A. PBR Requirements. Except as provided in paragraph 14-1-3-13, the PBR requires timely written notification to the individuals described in paragraph 14-1-3-3 of the following, as applicable:

- The nature of the investigation;
- That an oral or written response to a Letter of Investigation (LOI) from the Administrator is not required;
- That no action or adverse inference can be taken against the individual for declining to respond to an LOI from the Administrator;
- That any response to an LOI from the Administrator or to an inquiry made by a representative of the Administrator by the individual may be used as evidence against the individual;
- That the releasable portions of the Administrator's investigative report will be available to the individual; and
- That the individual is entitled to access or otherwise obtain air traffic data described in paragraph 14-1-3-15.

NOTE: For purposes of the PBR and this section, airmen and their associated certificates and ratings include: (1) pilots, (2) flight instructors, (3) Flight Engineers (FE), (4) aircraft dispatchers, (5) mechanics, (6) mechanics with inspection authorizations, (7) repairmen, (8) parachute riggers, and (9) control tower operators. However, holders of ground instructor and flight attendant (F/A) certificates are not airmen as defined by statute or regulation. An investigation related solely to a ground instructor certificate or an F/A certificate does not require the PBR notification described in this chapter.

B. Creation of the CP and PBR Brochure. In response to AFS policy changes on PBR notification with the introduction of the FAA CP in 2015, industry advocates suggested that providing PBR notification at first contact with airmen was the most transparent and collaborative course of action for AFS. Based on this and other feedback from internal and external stakeholders, AFS created the CP and PBR Brochure (see Appendix 14-1, Compliance Philosophy and Pilot's Bill of Rights Brochure) to more efficiently and effectively share CP information and comply with PBR notification requirements. The Brochure was designed for use in most AFS interactions with airmen as described below.

14-1-3-5 USING THE CP AND PBR BROCHURE.

A. Availability of the Brochure. AFS offices must ensure that color printed copies of the Brochure (Appendix 14-1) are available to inspectors for immediate use while conducting surveillance and throughout the normal course of business. Offices may print and distribute copies of the Brochure and direct the public to find it at www.faa.gov/go/cp.

B. Safety Promotion Activities and Routine Airman Contacts. AFS encourages frequent sharing of the Brochure to educate airmen and other interested parties about the FAA CP. All personnel are encouraged to provide the Brochure during appropriate contacts with airmen in the course of other duties such as in FAA facility waiting areas, at public aviation events, and at any other opportunity to share safety or policy information. When the Brochure is

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shared for routine or safety promotion purposes, the space inside the form to describe the apparent noncompliance remains blank. There is no AFS national requirement to document these uses of the Brochure in the Program Tracking and Reporting Subsystem (PTRS) or the Safety Assurance System (SAS).

C. Inquiries and Investigative Uses. Brochure use applicability for PBR notification is described in general here and in detail in paragraphs 14-1-3-7 through 14-1-3-15.

1) All Airman Contacts. During an inquiry into an apparent deviation or noncompliance when an LOI or reexamination letter is not used, the inspector must:

a) Write a brief description of the nature of the investigation in the space provided in the Brochure (or per subparagraph 14-1-3-5C2) below) before giving the Brochure to the airman;

b) Provide the inspector's contact information to the airman; and

c) Document the description of the event and the date the Brochure was given to the airman in the PTRS activity record for the event under investigation, and include the information in an Enforcement Investigative Report (EIR) if one is opened.

2) Telephonic and Written Contact Additional Considerations. If initial investigative contact is made with an airman over the telephone (such as after AFS notification of a possible pilot deviation (PD) by air traffic personnel), AFS personnel should verify the airman's current email or mailing address, provide an electronic or hard copy of the Brochure, and validate that the airman received the Brochure before substantively discussing the issue or event. The brief description requirement of subparagraph 14-1-3-5C1)a) may be entered in the body text of the email or letter in lieu of including the description on the Brochure. Email and letter requests must include the Privacy Act Notice in Appendix 14-2, Privacy Act Notice.

3) PTRS Activity Number and Records. There is no specific activity number associated with required uses of the Brochure or PBR notification. If the investigatory path or outcome is not clear at the start of the inquiry, or if the inquiry finds no noncompliance, the required documentation in this section can be placed in the underlying activity record that lead to the inquiry (such as a PTRS surveillance record comment or SAS Data Collection Tool (DCT) Inspector Action Taken field). Once an investigation begins, the required documentation in this section is placed in an appropriate investigatory record where it can be readily located in the future (e.g., complaint, occurrence, PD, incident, accident, reexamination, compliance action, or enforcement action). The goal is to retain information showing when and why PBR notification was given.

14-1-3-7 WHEN WRITTEN PBR NOTIFICATION IS REQUIRED. Except for instances when giving the required notification under the PBR would threaten the integrity of the investigation as described in paragraph 14-1-3-13, AFS personnel provide timely written notification of investigation in these circumstances:

A. Providing the PBR Notification via the Brochure. When AFS personnel first inquire into the nature and circumstances of apparent noncompliance, they provide the Brochure

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to the airman. AFS personnel note the nature of the investigation in the space provided in the Brochure. AFS personnel provide the Brochure even if they initially expect to resolve the noncompliance with compliance action. AFS personnel provide the Brochure to encourage open and transparent discussion under CP, to inform the airman of his or her rights under PBR, and to preserve FAA legal rights to use the information collected if enforcement action is later determined necessary.

1) Inquiries Involving Air Traffic Data. Where an FAA inquiry into apparent noncompliance involves air traffic data, time is of the essence because some air traffic data is routinely destroyed or disposed of in the ordinary course of business (see Volume 7, Chapter 1, Section 2 for additional information on data collection from FAA and contractor sources and coordination with Air Traffic personnel). In such a case, inspectors provide the Brochure to involved airmen in a timely manner. The inspector documents the date the Brochure was provided in the investigative PTRS record and includes this information in the EIR if one is opened. See additional information on air traffic data in paragraph 14-1-3-15.

NOTE: If initial contact is made with an airman over the telephone, comply with subparagraph 14-1-3-5C before substantively discussing the issue or event.

2) Inquiries Arising During Routine Contact with Airmen. Inspectors frequently have contact with airmen in the ordinary course of FAA oversight responsibilities (e.g., during a ramp inspection or during surveillance of a certificate-holding entity where the airman is employed). The PBR does not apply during routine contacts with airman because these contacts are not airman-focused investigations which could lead to certificate action. However, if in the course of routine contact, the inspector becomes aware of what may be a deviation from a statutory or regulatory requirement by an airman and the inspector wants to continue interviewing the airman, the inspector at that point would be conducting an “investigation” as that term is used in the PBR. Accordingly, to comply with the PBR, the inspector must provide timely written notification using the Brochure, unless, as described in paragraph 14-1-3-13, providing the notification at that time would threaten the integrity of the investigation. Before providing the Brochure to the airman, AFS personnel note the nature of the investigation in the space provided in the Brochure. Date of the airman’s receipt of the Brochure must be entered by the inspector in an appropriate PTRS or SAS record (the surveillance activity which led to the discovery or an investigation record opened for the inquiry) and included in the EIR if one is later opened.

3) Additional Training. Written PBR notification is required using the Brochure when an aviation safety inspector (ASI):

a) Makes a remedial training (RT) offer to an airman per Volume 15, Chapter 6, Section 1; and

b) Requires an airman to complete other additional training conducted by operator/agency/airport certificate holders under their approved or required employee training programs as described in Volume 14, Chapter 3, Section 2.

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NOTE: If the required PBR notification was previously provided to the airman and documented by AFS as part of the initial inquiry or investigation that led to the additional training requirement, the Brochure does not have to be provided again.

B. Providing the PBR Notification via an LOI to an Airman. When it becomes apparent that administrative or legal enforcement action is appropriate, AFS personnel issue an LOI. The LOI includes the required written notification under the PBR. Inspectors must use Figure 14-1-3A, Sample Letter of Investigation for Airman Certificate Actions, for any investigation for which there is an EIR opened on an airman that might result in the suspension, revocation, or modification of an Airman Certificate, including any rating or inspection authorization. Modification of a certificate would include the suspension or revocation of a rating, or the imposition of a limitation on an Airman Certificate (e.g., no circling approaches or no passengers). Any LOI issued to an individual as described in this paragraph must include the written notifications in the sample LOI in Figure 14-1-3A; therefore, the Brochure is not provided with an LOI.

1) Timing. Except as provided in paragraph 14-1-3-13, the LOI referenced in subparagraph 14-1-3-7B must be issued to the individual in a timely manner.

2) Return Receipt. The inspector must send the LOI via certified mail, or hand-deliver the letter and have the airman sign for receipt, in order to record the date the notification was received. If the airman is personally served but refuses to sign for an LOI, the inspector will document in writing that the PBR information was provided. The acknowledgement template on the last page of the Figure 14-1-3B, Sample Written Notification to an Airman Applicant, can be used for this purpose after deleting the phrase "…at the time of this application" from the airman's certification statement. The inspector must complete and retain their portion of the documentation of the applicant's receipt of the written notification regardless of whether the applicant signs the acknowledgment of receipt.

C. Other Circumstances. AFS must provide written PBR notification to airmen in the following other circumstances:

- At the time an individual submits an application for an Airman Certificate, rating, or inspection authorization. See paragraph 14-1-3-9.
- In a letter requesting reexamination of an airman's qualifications to hold an Airman Certificate, rating, or inspection authorization. See paragraph 14-1-3-11.

14-1-3-9 APPLICATION FOR AN AIRMAN CERTIFICATE, RATING, OR INSPECTION AUTHORIZATION. Under 49 U.S.C. § 44703(a), the Administrator issues an Airman Certificate if, after an investigation, the Administrator determines the individual is qualified for and physically able to perform the duties related to the position to be authorized by the certificate. The examination of an applicant for an Airman Certificate, rating, or inspection authorization is considered an investigation of the individual's qualifications to hold the Airman Certificate, rating, or inspection authorization for which the individual has applied. Because such investigations are not for the purpose of determining whether a deviation occurred, the inspector does not issue an LOI and, therefore, only the notifications in Figure 14-1-3B need to be

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provided to an individual who applies for an Airman Certificate, rating, or inspection authorization. Documentation of the applicant's receipt of the required written notifications at the time of the application must be retained with the individual's application. The inspector (or Designated Examiner (DE)) conducting the examination must complete the examiner's portion of Figure 14-1-3B.

NOTE: FAA Form 8710-1, version 4-16, contains the required PBR written notification as part of pages *i* through *iii* and in Block V, Applicant's Certification. Figure 14-1-3B should be used only if the application form itself does not already include the required written notification under the PBR and a place for the applicant to acknowledge receipt of the written notification. When Figure 14-1-3B is used, FAA inspectors (or DEs) must complete and retain their portion of the documentation of the applicant's receipt of the written notification regardless of whether the applicant signs the acknowledgment of receipt.

14-1-3-11 LETTERS REQUESTING REEXAMINATION UNDER 49 U.S.C. § 44709. Letters requesting reexamination under 49 U.S.C. § 44709 involve FAA investigations of an individual's qualifications to continue to hold an Airman Certificate, rating, or inspection authorization. Because reexaminations of an individual's qualifications are not investigations for the purpose of determining whether a deviation occurred, only some of the written notifications under the PBR apply. Therefore, inspectors must use Volume 5, Chapter 7, Section 1, Figure 5-140, or Volume 5, Chapter 7, Section 3, Figure 5-151 (as applicable), Letter of Notification of Reexamination Under Title 49 U.S.C. § 44709, for any airman who is the subject of a reexamination of his or her qualifications to continue to hold an Airman Certificate, rating, or inspection authorization. If needed, Volume 5, Chapter 7, Sections 2 and 3 contain sample letters that provide the required notification for an airman placing his or her certificate on temporary deposit pending reexamination.

NOTE: The inspector must send the letter requesting reexamination (Volume 5, Chapter 7, Section 1, Figure 5-140; or Volume 5, Chapter 7, Section 3, Figure 5-151) via certified mail, or hand-deliver the letter, in order to record the date the airman received the information required by the PBR.

14-1-3-13 DELAYING NOTIFICATION UNDER THE PBR. The Administrator may delay timely written notification required under the Act if he or she determines that such notification may threaten the integrity of the investigation. Notification must be provided once the threat to the integrity of the investigation has ceased. If time permits, an inspector should consult with and get the concurrence of his or her Front Line Manager (FLM) and FAA enforcement counsel before deciding to delay providing the written notifications under this exception. Examples of circumstances where the integrity of the investigation could be threatened by providing written notification to an airman include:

A. Destruction/Concealment. Providing the required notification under the PBR presents a risk of:

1) Destruction of evidence.

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2) Concealment of evidence.

NOTE: Once the risk of destruction or concealment of evidence has passed, the Administrator must provide the required written notification.

B. Death or Serious Bodily Harm. Giving the required notification under the PBR might lead to a risk of death or serious bodily injury, or destruction of property.

NOTE: Once the risk has abated, the Administrator must provide the required written notification.

NOTE: Any inspector invoking the exception to delay providing an individual with written notification of investigation must explain the basis for doing so in the related PTRS record and in Section B of the EIR, if one is required.

14-1-3-15 ACCESS TO AIR TRAFFIC DATA UNDER THE PBR. The PBR requires that the Administrator provide an individual who is the subject of an investigation described in paragraph 14-1-3-3 "with timely access to any air traffic data in the possession of the Federal Aviation Administration that would facilitate the individual's ability to productively participate in a proceeding relating to" the investigation. In addition, an individual may obtain air traffic data in the possession of a government contractor that provides operational services to the FAA by submitting a request to the Administrator that describes the facility at which such information is located and identifies the date on which such information was generated. When that happens, the PBR requires the Administrator to request the air traffic data from the government contractor and upon receiving such information provide it to the individual in a timely manner. By law, AFS personnel must provide all air traffic data as described in subparagraph A below (from both FAA and contractor sources) in a timely manner when requested by an airman. In the interest of transparency and as a matter of policy, AFS personnel will provide all air traffic data in the investigating inspector's possession when sending an LOI to an airman. The data may be provided to the airman's counsel if the counsel requests it on behalf of the airman. A description of each air traffic data package provided and the date of any requests for data must be recorded in the appropriate PTRS record (such as a PD activity record) that led to the collection of the data.

NOTE: See Volume 7, Chapter 1, Section 2 for additional information on data collection from FAA and contractor sources and coordination with air traffic.

A. Air Traffic Data. The term "air traffic data" as used in the PBR consists of relevant air traffic communication tapes, radar information, air traffic controller statements, flight data, releasable portions of investigative reports, and any other air traffic or flight data that would facilitate the individual's ability to productively participate in a proceeding. The following is considered air traffic data:

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1) Relevant air traffic communication tapes including the following:

- Communication recordings between the flightcrew of the subject aircraft and air traffic control (ATC);
- Communication recordings among air traffic controllers concerning the subject aircraft; and
- Communication recordings between air traffic controllers and other aircraft in the area of the subject aircraft.

2) Radar information including radar data regarding the subject aircraft and other aircraft in the vicinity.

3) Air traffic controller statements, including the statements, if any, by supervisory controllers concerning the subject aircraft and the subject event.

4) Flight data including:

- Communications other than taped communications between air traffic controllers and the flightcrew of the subject aircraft;
- Other nonradar data in the possession of FAA's Air Traffic Organization (ATO) that identifies the location of the subject aircraft at relevant times during the flight operation under investigation;
- Weather reports; and
- Relevant Notices to Airmen (NOTAM) in effect on the date of the flight operation under investigation.

5) Releasable portions of investigative reports related to air traffic data including:

- FAA Form 8020-17, Preliminary Pilot Deviation Report; and
- Statements from Flight Service Station (FSS) briefers provided to the FAA in connection with a flight operation under investigation.

6) Any other air traffic or flight data in the FAA's possession that would facilitate the individual's ability to productively participate in a proceeding related to the flight operation under FAA investigation.

B. Inspector Responsibility to Obtain, Maintain, and Provide Relevant Air Traffic Data. Relevant air traffic data as described in this paragraph refers to air traffic data that either tends to prove or disprove whether an operational deviation that is under investigation occurred. Inspectors are responsible for gathering the relevant air traffic data associated with an apparent operational deviation during their investigation, consistent with current orders and guidance.

1) General. All relevant air traffic data (as described in subparagraph 14-1-3-15A) obtained by the inspector in the course of an investigation of an operational deviation must be provided to the airman and included in the EIR if the FAA takes administrative or legal enforcement action. In addition, such air traffic data obtained by AFS personnel must be retained

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in accordance with retention requirements in the current edition of FAA Order 1350.14, Records Management.

2) Authority to Release. AFS personnel have the authority to release FAA facility or government contractor air traffic data to an airman or, if the request is made by the airman's counsel, to the airman's counsel during the investigation.

3) Providing Requested Air Traffic Data to the Individual While the Investigation is Pending. The inspector who provides an individual with the notifications required under the PBR (see subparagraph 14-1-3-5C and paragraph 14-1-3-7) will also serve as the point of contact (POC) for that individual and will request access to air traffic data in the possession of the FAA or in the possession of a government contractor relating to an apparent operational deviation by the individual.

4) Providing Air Traffic Data with the LOI. AFS personnel must provide all relevant air traffic data, as described in subparagraph 14-1-3-15A, in the possession of AFS at the time when sending the airman an LOI. Any concerns regarding the release of such air traffic data during the investigation should be discussed with the appropriate FAA enforcement counsel.

5) Providing Air Traffic Data When Requested By An Airman. AFS personnel must provide relevant air traffic data as described in subparagraph A above when requested by an airman. An ASI must carefully review an airman's request for the data to ensure that the ASI fully responds to that request. For example, in a particular case, the ASI provided data to the airman with the LOI before the airman requested such data. The airman then requested the ASI to provide all ATC data relevant to that airman's case. The ASI is responsible for determining whether additional ATC data exists that the ASI did not provide with the LOI and which would be responsive to the airman's request. If such additional ATC data does exist, the ASI is responsible for providing that data to the airman. Any concerns regarding the release of air traffic data during the investigation should be discussed with the appropriate FAA enforcement counsel.

6) Identifying Air Traffic Data in the EIR. Any air traffic data released by the investigating office during the investigation must be specifically identified in the EIR (if administrative or legal enforcement action is taken) as having been released by the inspector, including the date of release. In addition, all air traffic data obtained in the investigation must be included in the EIR.

7) Providing Air Traffic Data after an EIR Has Been Forwarded by the Investigating Office. Any air traffic data obtained after an EIR has been forwarded to FAA enforcement counsel must also be forwarded to FAA enforcement counsel. See subparagraph 14-1-3-15D coordination requirements.

8) PTRS Documentation. The date of all requests from individuals for air traffic data, and the specific data and date(s) released, must be documented in the investigative PTRS record for the activity that generated the collection of the data.

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C. Air Traffic Data in the Possession of a Government Contractor.

1) The PBR also states that the individual can obtain air traffic data in the possession of a government contractor providing operational services to the FAA (including contract control towers and FSSs) that would facilitate the individual's ability to productively participate in a proceeding related to an investigation, provided that the individual submits a request to the FAA identifying the:

a) Facility at which such information is located; and

b) Date on which such information was generated.

2) Personnel receiving a request from an individual for air traffic data in the possession of a specifically identified government contractor must document the date of the individual's request in the investigative PTRS record and promptly seek the requested information from the government contractor.

3) See subparagraph 14-1-3-15D coordination requirements.

D. Airman Notification of Air Traffic Data Availability and Coordination with FAA Enforcement Counsel. The PBR provides that, except in an emergency case, the Administrator may not proceed against an individual who is the subject of an investigation relating to the approval, denial, suspension, modification, or revocation of an Airman Certificate during the 30-day period beginning on the date on which the air traffic data described in paragraph 14-1-3-15 is made available to the individual.

1) The National Transportation Safety Board (NTSB) has interpreted "proceed" to mean the issuance of a notice of proposed civil penalty for non-emergency cases. A delay in the provision of air traffic data could negatively affect the prosecution of a case. Accordingly, AFS personnel are to provide air traffic data to airmen as soon as practicable after it is requested by the airman, and when an LOI is sent.

2) AFS personnel must inform FAA enforcement counsel of any requests for air traffic data received after an EIR has been forwarded to FAA enforcement counsel. In such cases, AFS personnel must coordinate the release of air traffic data with FAA enforcement counsel to ensure the 30-day waiting period is observed before the issuance of a notice of proposed certificate action.

14-1-3-17 VOLUNTARY SURRENDER OF CERTIFICATE. If an airman elects to voluntarily surrender his or her certificate for cancellation and the FAA accepts the surrender in accordance with the guidance in the current edition of FAA Order 2150.3, FAA Compliance and Enforcement Program, Chapter 5, subparagraph 14b, then no notification is required under the PBR. In this situation, there is no investigation relating to the approval, denial, suspension, modification, or revocation of an Airman Certificate, nor any inquiry of the airman that might elicit a response that could be used in an Airman Certificate action. See Volume 5, Chapter 7, Section 2 for the temporary surrender of a certificate pending reexamination.

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Figure 14-1-3A. Sample Letter of Investigation for Airman Certificate Actions

NOTE: The italicized portions are mandatory and must not be changed.

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

_____

_____

_____

_____

Dear _____:

Personnel of this office are investigating a flight that involved the operation of a Cessna 172S aircraft, N1234Z, under Instrument Flight Rules (IFR), from KFXE (Fort Lauderdale Executive Airport) en route to TNCC (Hato Airport, Curacao) on August 1, 2012. Our office was informed that you were identified as Pilot in Command (PIC) of this flight. Further, it has been noted that you do not hold an instrument rating on your pilot certificate. Operations of this type may be contrary to Title 14 of the Code of Federal Regulations (14 CFR).

This letter is to inform you that this matter is under investigation by the Federal Aviation Administration (FAA). In accordance with the Pilot's Bill of Rights (PBR), we are informing you that:

(1) The nature of this investigation [enter summary description such as: is to determine if you operated civil aircraft N1234Z] *as described above in violation of the Federal Aviation Regulations, and if so, what, if any, enforcement action should be taken.*

(2) Oral or written response to this Letter of Investigation (LOI) is not required, and no action can be taken or adverse inference made against you for declining to respond to this LOI.

(3) Any response by you to this LOI or to an inquiry made by a representative of the FAA Administrator may be used as evidence against you.

(4) If this investigation results in a legal enforcement action against your Airman Certificate, the releasable portions of the Administrator's investigative report will be made available to you upon your written request addressed to the FAA's legal counsel handling the enforcement action.

[If applicable to the nature of the investigation, include the following notification re: air traffic data --]

(5) You are entitled to access air traffic data in the possession of the FAA that would facilitate your ability to productively participate in a proceeding relating to this investigation. We have included with this letter all relevant air traffic data in our possession at this time. You are also entitled to obtain air traffic data in the possession of a government contractor providing operational services to the FAA (e.g., contract control towers and FSSs) provided that you submit a request to the Administrator that describes the facility at which such information is located and you identify the date on which such information was generated. During this

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investigation, you may submit your request to access or obtain air traffic data as described in this notification by contacting me at the address and telephone number noted in this letter. Because air traffic data is routinely destroyed or disposed of in the ordinary course of business, it is important that you submit your request for such data as soon as possible.

We would appreciate receiving any evidence or statements you might care to disclose regarding this incident within 10 days of receipt of this letter. Any discussion and/or written statements furnished by you will be given consideration in our investigation. If we do not hear from you within the specified time, our report will be processed without the benefit of your statement.

Sincerely,

[name]

Aviation Safety Inspector

Enclosure [Include Privacy Act Notice from Appendix 14-2.]

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Figure 14-1-3B. Sample Written Notification to an Airman Applicant

NOTE: The italicized portions are mandatory and must not be changed.

PILOT'S BILL OF RIGHTS (PBR) WRITTEN NOTIFICATION OF INVESTIGATION

The information you submit on the attached FAA Form _____ [insert form number and the title of the Airman Certificate application] *will be used by the Administrator of the FAA as part of the basis for issuing an Airman Certificate, rating, or inspection authorization to you under Title 49, United States Code (U.S.C.) section 44703(a), if the Administrator finds, after investigation, that you are qualified for, and physically able to perform the duties related to the certificate, rating, or inspection authorization for which you are applying. Therefore, in accordance with the PBR, the Administrator is providing you with this written notification of investigation of your qualifications for an Airman Certificate, rating, or inspection authorization:*

- *The nature of the Administrator's investigation, which is precipitated by your submission of this application, is to determine whether you meet the qualifications for the Airman Certificate, rating, or inspection authorization you are applying for under Title 14 Code of Federal Regulations (CFR) part 61, 63, or 65.*
- *Any response to an inquiry by a representative of the Administrator by you in connection with this investigation of your qualifications for an Airman Certificate, rating, or inspection authorization may be used as evidence against you.*
- *A copy of your airman application file for this date is available to you upon your written request addressed to:*

Federal Aviation Administration
Airmen Certification Branch, AFS-760
P.O. Box 25082
Oklahoma City, OK 73125-0082

(If you make a written request for your airman application file, please provide your full name, date of birth, or Airman Certificate number for identification purposes, and also the date of the application.)

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Figure 14-1-3B. Sample Written Notification to an Airman Applicant (Continued)

[To Be Retained by the FAA Inspector/Designated Examiner]

ACKNOWLEDGMENT OF RECEIPT OF PBR WRITTEN NOTIFICATION

I acknowledge that I received the Pilot's Bill of Rights Written Notification of Investigation at the time of this application.

_____ Airman Certificate No._____
Applicant's Name (Print) (if applicable)

Applicant's Date of Birth _____

_____ DATE:_____
Signature of Applicant MM/DD/YYYY

* * * * *

To Be Completed by the FAA Inspector/Designated Examiner –

I have personally delivered the Written Notification under the PBR to

_____ on _____
[print name of the individual] MM/DD/YYYY

_____ FAA Office: _____
FAA Inspector/Designated Examiner (Print)

_____ FAA Office: _____
FAA Inspector/Designated Examiner (Signature)

14-1-3-19 through 14-1-3-33 RESERVED.

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VOLUME 15 FAA SAFETY TEAM POLICIES AND PROCEDURES

CHAPTER 6 REMEDIAL TRAINING

Section 1 FAASTeam Program Manager/Regional FAASTeam Point of Contact Duties and Roles to Facilitate Remedial Training

15-6-1-1 GENERAL. The Federal Aviation Administration (FAA) Safety Team (FAASTeam) supports the FAA Compliance Philosophy (CP) and Flight Standards Service (AFS) Compliance Policy through the remedial training (RT) process. The goal of RT is to correct safety issues that underlie deviations from standards as effectively, quickly, and efficiently as possible; to return an individual or entity that holds an FAA certificate, approval, authorization, or license to full compliance; and to prevent recurrence. FAASTeam Program Managers (FPM) are involved in identification and development of the appropriate training curriculum based on input from the investigating aviation safety inspector (ASI).

A. Purpose. This section describes the eligibility and exclusion criteria for RT, training options to be considered by the FPM/Regional FAASTeam Point of Contact (RFPOC) when developing an appropriate RT course syllabus or training agreement, and when managing the RT program until it has been completed.

B. Scope. For the purpose of this section, an airman refers to any individual certified under Title 14 of the Code of Federal Regulations (14 CFR) part 61, 63, 65, or 145 (except for part 65 subpart B air traffic control (ATC) tower operators). This section provides guidance to the referring office on determining eligibility for RT and FAASTeam-specific procedural guidance to the FPM/RFPOC once an RT request has been assigned to the FPM/RFPOC. FPM/RFPOCs shall continue to follow the applicable portions of the orders referenced under subparagraph 15-6-1-5D in cooperation with the investigating ASI.

C. Applicability. RT applies to unintentional deviations from regulatory standards of 14 CFR committed by certain airmen. This program applies to individual airman certificate holders *excluding* those who were: 1) using their certificate in operations conducted under 14 CFR part 91 subpart K (part 91K), 121, 129, or 135; and 2) covered by an approved training program at the time of the deviation (with some exceptions as described in the subparagraphs below). These *excluded* airmen should be remediated under their operator's training program at the discretion of the principal inspector (PI). The PI may use the general guidelines in this section and/or the operator's training program to determine appropriate additional training with input from the investigating ASI and the operator. FAASTeam resources should not be used. See additional information in Volume 14, Chapter 3, Section 2.

NOTE: Airmen who are no longer employed where they committed an apparent deviation while covered by an employer's training program may be eligible for RT.

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1) Part 135 Single Pilot Operators (which have no training programs) are eligible for RT.

2) Part 91K and part 135 single pilots in command (PIC) or basic pilots may be eligible if approved deviations from required management positions or other factors result in no appropriate company trainer with oversight of the trainee candidate. In such instances, Designated Pilot Examiners (DPE) or other appropriate FAA designees should be strongly considered as training providers for part 135 trainees. When in doubt as to the eligibility of an airman for RT, the responsible PI's field office manager will make the determination with input from the investigating ASI, PI, and their Front Line Managers (FLM) based on the facts and circumstances of each case, Volumes 14 and 15 policy, and available FAA resources.

3) Part 145 airmen may be excluded from RT. If the investigating ASI and PI determine that the airman's deficient areas are within the scope of the training programs or manuals required by part 145, § 145.163, § 145.165, § 145.207, or § 145.211, the airman is normally excluded from eligibility for RT. These excluded airmen should be remediated under their repair station's training program at the discretion of the PI. The PI may use the general guidelines in this section and/or the repair station's training program to determine appropriate additional training with input from the investigating ASI and the repair station. FAASTeam resources should not be used.

4) Part 145 airmen may be eligible for FAASTeam RT if approved deviations from required management positions or other factors result in no appropriate company trainer with oversight of the trainee candidate. In such instances, Designated Mechanic Examiners (DME) or other appropriate FAA designees should be strongly considered as training providers for part 145 trainees. When in doubt as to the eligibility of an airman for RT, the responsible PI's field office manager will make the determination with input from the investigating ASI, PI, and their FLMs based on the facts and circumstances of each case, Volumes 14 and 15 policy, and available FAA resources.

5) RT may be offered again in a new subject area to a trainee currently involved in RT, or to an airman being reexamined under Title 49 of the United States Code (49 U.S.C.) § 44709, if the subject area was not part of the original RT agreement or request for reexamination. The airman must have successfully completed all elements specified in the previous RT agreement or identified in the previous reexamination letter. The newly identified concern or deficiency must be independently evaluated under Volume 14, Chapter 1, Section 2 as appropriate for Compliance Action, and, if appropriate, a new RT offer may be made by the investigating ASI, within policy as described below at subparagraph 15-6-1-11F2) and in Volume 14, Chapter 3, Section 2.

6) RT will not be conducted by the investigating inspector, an FPM/RFPOC, the PI, or any other FAA personnel. This does not prevent attendance in any scheduled FAASTeam-sponsored safety event as part of an RT agreement. The investigating inspector, based on the facts of the case, recommends that the airman may be eligible for RT.

D. Goal. The goal of the RT program is to gain future compliance with FAA regulations through training, thereby enhancing safety in the National Airspace System (NAS). The FAA

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recognizes that some deviations arise from factors such as flawed procedures, simple mistakes, lack of understanding, or diminished skills. The FAA believes that deviations of this nature can most effectively be corrected through Root Cause Analysis (RCA) and training or education for airmen, as well as appropriate improvements to procedures or training programs for regulated entities, which are documented and verified to ensure effectiveness. However, reluctance in adopting these methods to remediate deviations or instances of repeated deviations might result in enforcement.

15-6-1-3 DEFINITIONS.

A. Remedial Training (RT). A form of FAA Compliance Action outside of enforcement action which uses education to allow airmen who have committed an inadvertent apparent deviation to enhance their knowledge and skills.

B. Compliance Action. See Volume 14, Chapter 1, Sections 1 and 2 for a full discussion of Compliance Action, including the definition in Section 2, subparagraph 14-1-2-3D.

15-6-1-5 TASK PREREQUISITES AND SIGNIFICANT INTERFACES.

NOTE: FAASTeam staff must have knowledge of 14 CFRs applicable to their assigned duties, FAA policies, and appointment as an FPM or RFPOC.

A. Program Tracking and Reporting Subsystem (PTRS) Activity Code. See Table 15-6-1A, Remedial Training PTRS.

1) Operations: 1950.

2) Maintenance: 3950.

3) Avionics: 5950.

Table 15-6-1A. Remedial Training PTRS

PTRS Activity Code	National Use	Primary Area	Key Word	Description	Performance Target	LDR **12XXFAFAAST**
1950 or 3950 or 5950	(Leave Blank)	K	999	Remedial Training	On Demand	RT0010

B. Significant Interfaces. This task requires coordination with the following organizations or individuals:

- The investigating ASI;
- The responsible Flight Standards District Office (FSDO) manager;
- AFS field office managers and staffs;
- Certificated and noncertificated airmen, air operators, and air agencies;
- The educational product, service, and facility providers;
- The airman offered RT;

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- The FAASTeam Representative (REP) volunteer workforce; and
- The RFPOC.

C. Automation Tools:

- National FAASTeam Web site at http://www.FAASafety.gov;
- Safety Performance Analysis System (SPAS); and
- Air traffic quality assurance (ATQA).

D. References.

NOTE: To ensure you are using the most current information, check the Flight Standards Information Management System (FSIMS).

1) Procedural Guidance (current editions):

- FAA Order 1380.51, Program Tracking and Reporting Subsystem.
- PTRS Procedures Manual (PPM).
- Volume 14, Chapter 1, Sections 1 and 2; and Chapter 3, Section 2.
- FAA Order 2150.3, FAA Compliance and Enforcement Program.
- FAA Order 8000.373, Federal Aviation Administration Compliance Philosophy.

2) Forms:

- Job aids. [Reserved]
- FAA Form 8000-36, Program Tracking and Reporting System Data Sheet.
- Sample Compliance Action Remedial Training Offer (Figure 15-6-1B).
- Accepted Format for Remedial Training Agreement (Figure 15-6-1C).
- Sample Remedial Training Agreement Letter (Figure 15-6-1D).
- Notification of Successful Remedial Training Completion (Figure 15-6-1E).
- Notification of Failure of Remedial Training Completion (Figure 15-6-1F).
- Notification of Voluntary Airman Withdrawal (Figure 15-6-1G).
- Notification of Recommended Airman Withdrawal (Figure 15-6-1H).
- Sample Remedial Training Completion Certification from Remedial Training Provider (Figure 15-6-1J).
- Sample Letter of Completion – Flight Operations (Figure 15-6-1K).
- Sample Letter of Rescission – Flight Operations (Figure 15-6-1L).
- Privacy Act Notice (Figure 15-6-1M).

15-6-1-7 BACKGROUND. The FAA CP is intended to find problems and correct them as effectively, quickly, and efficiently as possible. The FAA CP builds on and clarifies the existing policy latitude to use non-enforcement methods first, where appropriate, to achieve compliance, such as RT (refer to Order 8000.373 and Volume 14, Chapter 1 for additional information).

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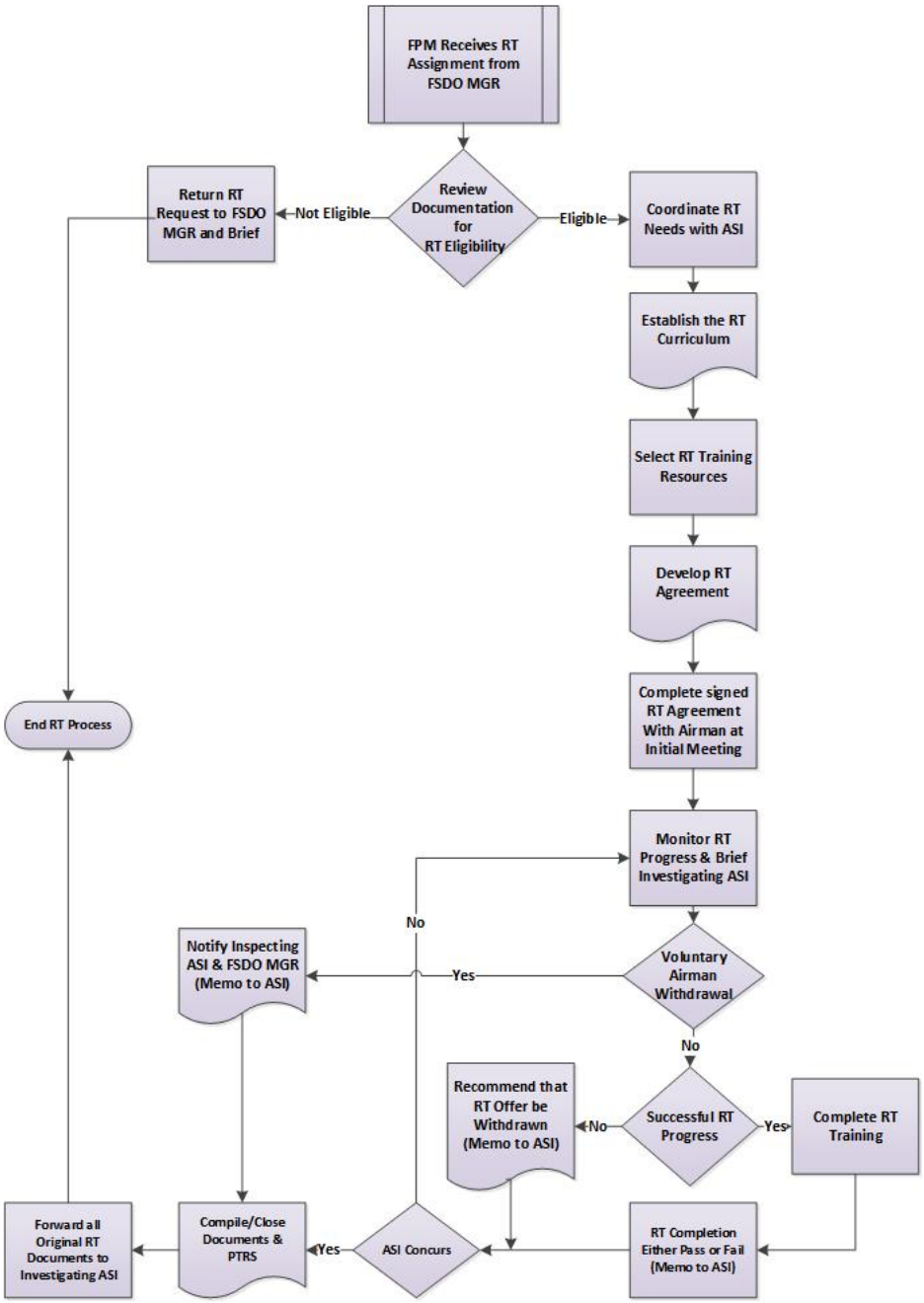
15-6-1-9 RT PROCESS FLOW.

Figure 15-6-1A. Remedial Training Process Flow Map



15-6-1-11 PROCEDURES.

A. RT Initial Offer. The inspector investigating the apparent deviation determines an airman's eligibility for the RT program based on an assessment of the specific facts and circumstances and the airman's observable behaviors and record (see Volume 14, Chapter 1, Section 2). If appropriate, the ASI makes an initial informal offer of RT (verbally or via email).

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1) When the airman agrees to participate in the RT program, the investigating inspector (ASI) will send a formal written offer for the participation in RT. A sample letter sent by the ASI can be found in Figure 15-6-1B. After acceptance of the RT offer, the ASI will proceed to subparagraph 15-6-1-11B below.

2) If the airman does not return the acceptance letter within 10 days of the receipt of RT offer, the ASI will consider the airman ineligible for RT. The ASI should use other enforcement tools such as administrative or legal enforcement actions to address the apparent deviation.

B. Notification of FSDO Manager. When the airman agrees to participate in the RT program, the investigating inspector (ASI) will notify his or her FSDO Manager. If the airman's domicile differs from the investigating FSDO, the ASI will notify his or her FSDO Manager who will then contact the FSDO Manager that has jurisdiction over the airman's domicile.
The investigating FSDO Manager will copy the notification to include the RFPOC. An email notification from the investigating ASI to their FSDO Manager will contain the following information:

1) Airman contact information.

2) A copy of the signed RT offer indicating acceptance to participate.

3) A summary of facts surrounding the case.

4) Recommended number of knowledge and/or practical hours of training.

5) Recommended topics to be covered in training.

6) Date the RT agreement needs to be satisfactorily accomplished by the airman.

7) The investigating ASI's *749 Additional Training PTRS record ID number.

C. FSDO Manager Assigns RT to FPM or Notifies Regional Management Team.

1) The FSDO Manager will assign the FPM to contact and start the process of RT with the airman as soon as practical. If no FPM is available, the FSDO Manager will notify the Regional Management Team for assignment to the RFPOC. The RFPOC should be involved in the coordination of FPM resources between FSDO Managers for FSDOs without an FPM.
The RFPOC may be assigned to manage the RT if FSDO resources are not available.

2) The FPM/RFPOC will open the appropriate PTRS record.

a) Operations: 1950.

b) Maintenance: 3950.

c) Avionics: 5950.

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3) The FPM/RFPOC will:

a) Provide the *950 PTRS record ID number to the investigating ASI; and

b) Enter a separate comment in the record with the investigating ASI's *749 PTRS record ID number using the appropriate Primary Area, Keyword "907," and Opinion Code "I," per chapter 4 of the PPM. Refer also to PPM appendix B for triggering and linking records.

D. Develop RT Curriculum and Agreement.

1) The FPM/RFPOC will:

a) Review all RT referral information. If, after reviewing the referral, the FPM/RFPOC determines that the airman should be considered ineligible, the referral is returned to the FSDO Manager with a briefing of the FPM/RFPOC's findings.

b) Review the Compliance Action requirements and overall process in Volume 14, Chapter 1, Section 2, and supplemental information in Volume 14, Chapter 3, Section 2.

NOTE: If the RT is the result of a runway incursion, please see paragraph 15-6-1-15, Runway Incursion RT Special Provisions Guidance, for special instructions.

c) Coordinate with the investigating ASI regarding scope and objectives, and review the content of the proposed RT with the investigating ASI and/or FSDO Manager.

d) Develop the RT curriculum. Discuss the case with the investigating ASI and/or responsible manager and clarify any points of confusion about the need for training and appropriate training; this would include a review of the proposed curriculum with the ASI and/or responsible manager prior to the initial meeting with the airman. The RT curriculum must be designed such that the airman must demonstrate sufficient knowledge to preclude recurrence of the apparent deviation. The RT curriculum will be developed by an FPM/RFPOC or ASI (if no FPM/RFPOC resources are available) who is within the specialty applicable to the RT curriculum. This does not preclude either FPM/RFPOC specialty from managing an RT case.

e) Determine RT resources to accomplish RT curriculum. The following are resources that the FPM should consider when developing the RT course:

- Applicable online courses on www.FAASafety.gov;
- Available online training from another respected source;
- Available local training from an FAA-certificated school (e.g., 14 CFR Part 141 Pilot Schools, Part 147 Maintenance Schools, etc.);
- Available local training from an FAA-certificated airman actively engaged in testing or training (e.g., DPE, certificated flight instructor (CFI), or DME);

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- FAASTeam REP; and
- Any other appropriately rated individual specifically qualified to provide the desired training (i.e., experienced in the type of aircraft involved in the violation).

NOTE: The FPM/RFPOC should take into account the availability of instructional resources in the airman's area of operation. If necessary, the FPM/RFPOC may request that the closest FSDO provide a list of approved training sources. The FPM/RFPOC should assist the airman in selecting a training source near where the airman resides and will be the final authority as to suitability of the selection. The FAA prefers the use of parts 141 and 147 approved schools and other training establishments periodically inspected by the FAA because of their high standards for training and recordkeeping. CFIs or maintenance instructors that are familiar with FAASTeam online resources are preferred as RT instructors. The FPM/RFPOC may train unfamiliar instructors to be knowledgeable resources.

2) Develop the RT agreement (see Figure 15-6-1C). The RT agreement should normally require no more than 21 days for completion after the airman signs the training agreement.

3) Training completion time. RT completion times will vary depending on the requirements of the training syllabus. The FPM should ensure that the training is completed in a timely manner using the following guidelines:

a) The RT syllabus should normally require no more than 21 days for completion after the airman signs the training agreement.

b) If the airman requires more than 21 days to complete the training, it could indicate the airman's lack of qualification. If this is the case, it would require reexamination under 49 U.S.C. § 44709(a).

c) The FPM may extend the RT agreement completion date if the extension is necessitated by urgent extenuating circumstances, such as illness or injury of the airman, death in the airman's family, illness, continuous poor weather, or prolonged aircraft unavailability. Extensions should be coordinated with the investigating office/inspector.

d) Unless serious illness or injury of the airman is involved, an extended deadline should not exceed 6 months from the date the apparent violation was known to the FAA.

4) Schedule/conduct the initial meeting with the airman. This meeting must include the following:

a) The FPM/RFPOC must provide the training timeline for RT completion as well as an explanation of the process if the RT is not accomplished in the prescribed time. (See Figure 15-6-1F.)

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b) The FPM/RFPOC must explain that the airman will bear all expenses incurred for the prescribed training.

c) The FPM/RFPOC must describe to the eligible airman the proposed course of training and training objectives as detailed in the proposed RT curriculum.

d) Before finalizing the RT agreement, the FPM/RFPOC must solicit input from the airman to make the training experience more effective and efficient.

e) The FPM/RFPOC must discuss the human factors aspects of the event to determine if there are any additional educational outreach actions that the RT provider should complete.

f) The FPM/RFPOC must also take the opportunity to discuss the following with the airman:

1. The top 10 General Aviation (GA) accident causes.

2. Familiarization with the www.FAASafety.gov Web site:

- Registration on the site;
- Training available;
- Setting preferences to receive email notifications; and
- The Pilot Proficiency Program (WINGS) or Aviation Maintenance Technician (AMT) Program.

g) The FPM/RFPOC must carefully explain that while a need for RT has been identified, the Administrator has chosen not to require reexamination under 49 U.S.C., § 44709, because sufficient evidence of lack of qualification was not present during the investigation. However, should evidence of a lack of qualification such as the inability to complete the prescribed RT be uncovered, the FAA could still require reexamination.

h) The FPM/RFPOC must ensure that the meeting does not develop into an informal discussion about the merits of the case.

i) If at any time the airman elects to contest the matter in litigation, the FPM/RFPOC must advise that the RT agreement will be returned to the investigating ASI. The ASI will then rescind the offer for RT and pursue another appropriate Compliance Action, FAA reexamination, administrative, or legal enforcement action. The FPM/RFPOC will brief their manager on the ASI's decision to rescind the airman's RT offer. (See Figure 15-6-1H.)

j) The FPM/RFPOC will explain that the clearly stated objectives of the RT agreement will be satisfied when successful completion of training has been documented, by the agreed completion date, on the airman's record at www.FAASafety.gov or by a document endorsed by the RT provider (e.g., logbook entry, completion of training statements, or completion certificates).

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NOTE: The airman must appear in person for the meeting. The requirement for a personal meeting may be waived only under very unusual circumstances that would make an actual meeting impracticable or impose an undue hardship on the airman. Under such circumstances, the discussion may take place by telephone. However, the airman's original signature must be on the RT agreement. If the Regional POC is performing the FPM duties in an RT case, it may not be practical for the POC to travel to the FSDO for a meeting with the airman. In such a case, the meeting can be conducted by telephone or by other electronic means.

5) The FPM/RFPOC will make a final determination of eligibility at the initial meeting. If, after the FPM meets with the airman, the FPM determines that the airman does not wish to participate in RT, does not present positive compliance behavior, or is otherwise not eligible, the FPM/RFPOC will discuss FPM findings with the investigating ASI. The FPM/RFPOC and ASI will work together to reach a consensus of opinion whenever possible. Disagreements should be professionally elevated until resolved. If both ASI and FPM concur, the FPM will inform the airman and make a written recommendation to the investigating ASI that the RT offer should be withdrawn. (See Figure 15-6-1H.)

6) When the FPM/RFPOC and the airman reach an agreement on the training, they will both sign an agreement outlining the terms and conditions of the RT course.

7) The FPM/RFPOC sends the RT provider a blank RT completion certification letter template and advises to return a signed copy when training has been completed. (See Figure 15-6-1J.)

E. Monitor RT Progress to Ensure Completion. During the conduct of the training, the FPM/RFPOC will monitor the progress and brief the investigating ASI as to the status of the training as it is being accomplished as stated in the RT agreement. If training progress is not occurring as agreed, the FPM/RFPOC should notify, in writing (e.g., email or other local memoranda), the investigating ASI as soon as practical.

NOTE: There may be some instances where the FPM/RFPOC recommends that an airman's RT be considered complete without the airman accomplishing the full amount of training hours specified in the RT agreement. Such instances may arise if the airman is unable to complete the training requirements due to illness, life events, etc. Consideration should be given to airmen who complete the WINGS program or the AMT Awards program. It is ultimately up to the investigating ASI whether or not to accept this recommendation from the FPM/RFPOC and issue the Letter of Completion. See Volume 14, Chapter 3, Section 2 for additional referring ASI instructions when RT is part of a Letter of Correction or other enforcement settlement.

F. Verify Airman Has Met or Failed to Meet Objectives.

1) The FPM/RFPOC will verify that the airman has successfully met, or failed to meet, the objectives outlined in the RT agreement. All documentation will be compiled and the *950 PTRS activity record completed by the FPM/RFPOC for the RT. When an airman fails

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to complete the agreed-upon RT to the FAA's satisfaction, terminate the *950 activity record with a "T" in the results field along with explanatory comments. In the event the investigating ASI disagrees with the FPM/RFPOC's recommendation for the airman's withdrawal, failure, or completion of an RT program, the FPM/RFPOC and the ASI will work together to reach a consensus of opinion whenever possible. Disagreements should be professionally elevated until resolved.

2) If the training provider identifies new areas of concern or deficiency outside the scope of the training agreement, the FPM/RFPOC will provide all available information to the investigating ASI. The FPM/RFPOC must clearly explain to the airman and include the new concern/deficiency information in the initial RT Letter of Completion or Rescission as a separate item requiring additional follow-up from the investigating ASI. The investigating ASI may investigate further and must make a new determination of whether Compliance Action and additional RT is appropriate using Volume 14, Chapter 1, Section 2. The investigating ASI may make a new RT offer and begin the process again from paragraph 15-6-1-11, or take other appropriate action.

3) The RT provider will complete the RT completion certification that the FPM/RFPOC provided as part of the RT documents during the curriculum development. (See Figure 15-6-1J.)

4) The FPM/RFPOC will verify with the RT provider that the RT completion certificate was properly completed. Copy and retain all RT agreement and training documents until verification that the investigating ASI has received the originals. Electronic copies are acceptable.

5) The FPM/RFPOC will notify the investigating inspector (recommend a courtesy copy/message to the assigning office manager) that the training has been completed and forward all original RT documentation to the investigating inspector for his or her files.

6) The FPM/RFPOC will close the *950 PTRS activity record with comments consistent with the Figure 15-6-1-C section IV information from the training provider, including:

a) Whether the airman withdrew or was recommended for withdrawal before beginning training, and if training began;

b) Each type of training (e.g., flight, ground, seminar, or online);

c) A brief description of each training topic and length;

d) The name of each training provider;

e) The certificate number of each certificated training provider;

f) Whether or not the training was completed successfully;

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g) Any other applicable information (including newly discovered deficiencies); and

h) The investigating ASI's *749 PTRS record ID number in a separate comment coded as described in subparagraph 15-6-1-11C3) above.

G. Referring ASI Procedures. See Volume 14, Chapter 3, Section 2 for additional requirements.

15-6-1-13 TASK OUTCOMES. Completion of this task results in a useful historical record of the RT event and one of the following:

- The airman successfully completing RT and the FPM/RFPOC notifying the investigating ASI (Figure 15-6-1E);
- The airman being unsuccessful and the FPM/RFPOC notifying the investigating ASI (Figure 15-6-1F);
- The airman voluntarily withdrawing from RT and the FPM/RFPOC notifying the investigating ASI (Figure 15-6-1G); or
- The FPM/RFPOC recommending airman be withdrawn from RT and notifying the investigating ASI (Figure 15-6-1H).

15-6-1-15 RUNWAY INCURSION RT SPECIAL PROVISIONS GUIDANCE.

A. RT Runway Incursion Procedures. In addition to the current referenced RT guidance in Volumes 7 and 14, the following are the RT runway incursion procedures. The FPM or RFPOC, as appropriate, must take into account the provisions of this section when drafting RT agreements. Further, the FPM or RFPOC will coordinate with their respective Regional Runway Safety Group office to determine if any additional information needs to be included in the RT agreement.

B. Special Emphasis. Additional procedures exist for RT that is being offered to airmen as a result of a runway incursion due to the special emphasis that has been placed on runway incursions by FAA Aviation Safety (AVS).

1) RT programs that result from a runway incursion will include a standardized modular ground training curriculum called the Runway Incursion Remedial Training Program (RIRTP) available at www.FAASafety.gov.

2) The FPM, in collaboration with the investigating ASI, is expected to use interdependence and critical thinking to evaluate the discrete facts of the runway incursion event and assign the module(s) that will fix the problem, ensuring that the outcome is consistent with regulations, policies, and the specific circumstances.

3) If the airman has previously completed an RIRTP, the ASI will determine if repeating an RIRTP will mitigate any future reoccurrences or if litigation should be used.

4) Additional ground training topics may be included as part of the RIRTP curriculum if warranted by the runway incursion event.

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5) An authorized flight or ground instructor (preferably a FAASTeam REP) that is approved by the FPM or RFPOC must give the ground training required by the RIRTP.

6) The FPM or RFPOC may include additional flight training requirements as part of the RIRTP if warranted by the particular facts of the runway incursion event.

7) During the conduct of the RIRTP, the instructor will evaluate the airman's knowledge of the required subject areas and proficiency in the maneuvers and procedures required in the RIRTP.

NOTE: For the purpose of RT, the airman may accomplish flight training in a flight simulation training device (FSTD) if the FPM or RFPOC finds the use of the FSTD appropriate. The airman must be agreeable to the use of an FSTD in the curriculum.

8) Additional provisions required for runway incursions classified as Category A or Category B include the following:

a) Flight training must be included as part of the RT curriculum. This may include, but it is not limited to, taxi procedures, landing procedures, takeoff procedures, and ATC communications.

b) A CFI who is a current DPE or Former ASI (FASI) must conduct the flight and ground training.

1. If a DPE is used, the FPM or RFPOC should explain to the DPE that they will not be performing certification duties or tasks during this training; rather, the examiner will be providing ground and flight instruction to the airman as a CFI and determining if the airman has an acceptable level of knowledge and proficiency of only the tasks required by the curriculum.

2. If a FASI is used, the following requirements must be met:

- The FASI must hold a current CFI certificate appropriate to the RT syllabus requirements.
- The FPM must verify the FASI's currency in testing and/or training airmen within the last 30 days.
- The FPM must ensure the FASI has current knowledge of runway incursion causal factors and mitigation strategies.
- The FPM must review the modular RIRTP assigned to the airman with the FASI.

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Figure 15-6-1B. Sample Compliance Action Remedial Training Offer

[DATE]
[NAME]
[ADDRESS]
[CITY, STATE ZIP]

Subject: Remedial Training Offer

[Title] [Name]

Personnel of this office are investigating an apparent deviation that involved [insert brief description]. In reviewing your apparent deviation, we have given consideration to all available facts and concluded that you are eligible to participate in the FAA remedial training (RT) program. This letter is to formally offer you RT. If you agree and would like to participate in RT in place of other FAA actions, you will need to sign the response below and return this letter within 10 days after the receipt indicating your desire to participate or decline to participate in this program. The final determination on your eligibility for the RT program is an FAA decision, not subject to appeal.

To successfully complete this RT course, you must comply with the following terms:

1. You must obtain the required training from a source approved by the local Flight Standards District Office (FSDO)/FAA Safety Team (FAASTeam) Program Manager (FPM)/Regional FAASTeam Point of Contact (RFPOC). Guidance in selecting an approved source of training will be provided.

2. Once RT begins, you must make periodic progress reports to the FPM/RFPOC.

3. You agree not to conduct operations in the area(s) identified in this RT offer until successful completion of the RT. If you continue to conduct operations in the areas identified in this RT Offer and have a similar deviation, this may be deemed as unwillingness to comply and would result in the RT Offer being withdrawn.

4. You must complete all elements of the RT syllabus and meet the completion standards within 30 days of signing the training agreement. The training agreement and any additional requirements will be coordinated in an upcoming meeting with the FPM/RFPOC if you accept this offer.

5. All expenses incurred for the prescribed training will be borne by you. When the assigned RT has been completed, we will consider this matter closed.

Should you have any further question please feel free to contact me.

Sincerely,

Aviation Safety Inspector
[FSDO Office address and contact information]

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Figure 15-6-1B. Sample Compliance Action Remedial Training Offer (Continued)

I [ ] accept the offer for me to participate in remedial training.

I [ ] decline the offer for me to participate in remedial training.

Date: Signature:

Figure 15-6-1C. Accepted Format for Remedial Training Agreement

I. A training agreement must contain the following elements at a minimum:

A. The proposed/required source(s) of training.
B. A clearly stated training objective(s).
C. A firm completion date (no more than 30 days).
1. Extensions may be approved with coordination between the Federal Aviation Administration (FAA) Safety Team (FAASTeam) Program Manager (FPM)/Regional FAASTeam Point of Contact (RFPOC) and aviation safety inspector (ASI).
2. Extensions should not exceed 6 months from date of apparent deviation.
D. A waiver of right regarding the stale complaint rule.
E. A clear training syllabus that can be easily followed by the Training Provider that includes:
1. A clear syllabus objective.
2. A definitive syllabus content and scope (e.g., flight, ground, and/or technical training, as appropriate).
3. Minimum training completion standards (e.g., FAA Practical Test Standards (PTS)).
F. Documents that will prove acceptable verification of completion of training requirements.
G. A statement regarding the airman's responsibility in the burden of costs.
H. A statement that the airman is not to conduct operations in the area identified in the Remedial Training (RT) Agreement and consequences that could result if a similar deviation occurs during the RT process.

II. Training must be accomplished by a source and/or facility acceptable to the assigned FPM or RFPOC. The FAA does not conduct any training, except a specific FAASTeam-sponsored Aviation Safety Meeting may be appropriate as part of an RT program. Other examples of acceptable sources are listed below:

A. Applicable courses on www.FAASafety.gov.
B. Available online training from another respected source.
C. Title 14 of the Code of Federal Regulations (14 CFR) part 141 approved schools or other flight schools with adequate facilities.
D. Title 14 CFR part 147 approved schools or other Maintenance Technician schools with adequate facilities.

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Figure 15-6-1C. Accepted Format for Remedial Training Agreement (Continued)

E. Available local training from an FAA-certificated airman actively engaged in testing or training (e.g., Designated Pilot Examiner (DPE), certificated flight instructor (CFI), Designated Mechanic Examiner (DME), Airframe and Powerplant (A&P)/Inspection Authorization (IA), etc.).
F. Numerous volunteer FAASTeam Representatives (REP) who pose specialized knowledge of the training objectives.
G. Other persons of specialized skill related to the training objectives who are otherwise experienced training providers.
H. An appropriate air traffic control (ATC) facility (in cases involving runway safety and airspace management).
I. A designated medical examiner.
J. Civil Aerospace Medical Institute (CAMI) presentations in Oklahoma City and at aviation events nationwide.
K. Military resources (e.g., physiological training centers).
L. Other training resources as appropriate (e.g., Crew Resource Management (CRM) training provided by contractors).
M. Technical training conducted by a manufacturer, maintenance organization, or employer.

III. The airman and/or the Training Provider must provide periodic progress reports to the assigned FPM/RFPOC to ensure that all elements of the RT agreement will be accomplished within the prescribed time limit. The FPM/RFPOC should reach an agreement with the airman as to the form, manner, and frequency of these reports (e.g., weekly “how goes it” calls from the airman’s Training Provider).

Note: Reports indicating negative progress must be sent to the investigating ASI, in writing as soon as practical.

IV. The Training Provider must provide written documentation indicating the airman’s satisfactory completion of the RT curriculum to the airman who will in turn provide the documentation to the FPM/RFPOC. This documentation will be in the form of a written endorsement from the person or persons conducting the RT and records of progress or phase checks, etc. The endorsements will indicate each element of the training for which instruction was given and the level of proficiency achieved. The endorsements will include the Training Provider’s name, authorizing signature, certificate number (as appropriate), date, and scope and duration of training provided to include the number of hours accomplished (as applicable). An example of this documentation that can be modified as needed and used by the FPM/RFPOC and RT provider is found in Figure 15-6-1D.

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Figure 15-6-1C. Accepted Format for Remedial Training Agreement (Continued)

V. The RT curriculum must be part of the training agreement and contain the following:

A. Pilot Proficiency Program (WINGS)/Aviation Maintenance Technician (AMT) accredited seminars, online courses found on FAASafety.gov, as appropriate, shall be utilized to fulfill training requirements. Such information can be found under "Activities, Courses, Seminars, & Webinars."
   1. "Course Catalog" includes a variety of online training courses (free or pay for use).
   2. "Find Seminars" provides a search tool for local safety events.
   3. "Find Activities" provides a search tool for flight and ground training/activities.
   4. Airmen will be required to be registered on FAASafety.gov as a user.

B. Duration of required training (hours, days, tasks, etc.): Types of training and hourly requirements for both pilots and mechanics should be the minimum required to correct the underlying behavior that caused the regulatory deviation. Any less or any more than the times recommended in this section would indicate that RT may not be the most effective means of fixing the problem.
   1. Ground school training for pilots or for mechanics/repairmen involved in vehicle/pedestrian deviations should not be less than 1 hour and no more than 10 hours of instruction.
   2. Flight training should require no less than 1 hour and no more than 8 hours of instruction. (Approved flight simulation training devices (FSTD) can be used in lieu of aircraft flight training when appropriate.)
   3. Mechanic/repairman RT for administrative (paperwork) noncompliance should not be less than 1 hour and no more than 8 hours of instruction.
   4. Mechanic/repairman RT for technical noncompliance should require no less than 1 hour and no more than 40 hours of instruction.

C. An explanation that the need for additional training due to unsatisfactory performance during RT that is beyond that which was initially required or if the objectives of the RT agreement cannot be successfully reached, the airman may be referred back to the investigating ASI to be withdrawn from the RT Program and considered for enforcement action or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a).

VI. The RT agreement must contain a statement that the airman understands that all costs related to the RT are borne by the airman.

VII. The RT agreement must define a firm completion date (no more than 30 days) to satisfactorily complete the requirements of the agreement.

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Figure 15-6-1C. Accepted Format for Remedial Training Agreement (Continued)

VIII. The RT agreement must include the following statement:

I, [insert airman name], agree to comply with the terms and conditions specified in this Remedial Training (RT) Agreement. I understand that failure to complete any element of this agreement within the prescribed period of time may result in my removal from the RT program and appropriate administrative or legal enforcement action and/or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a). If legal enforcement action is taken, I waive my right under section 821.33 of the National Transportation Safety Board's (NTSB) Rules of Practice (Title 49 of the Code of Federal Regulations (49 CFR) part 821, § 821.33), to move to dismiss the FAA's complaint as stale.

Figure 15-6-1D. Sample Remedial Training Agreement Letter

[DATE]

[NAME]
[ADDRESS]
[CITY, STATE ZIP]

Subject: Remedial Training Agreement

[Title] [Name]

This Remedial Training (RT) Agreement and curriculum was created by [FPM/RFPOC name], FAA Safety Team (FAASTeam) Program Manager (FPM) or Regional FAASTeam Point of Contact (RFPOC), on the basis of a referral received from Inspector [Investigating aviation safety inspector's (ASI) name], allowing you (aforementioned airman) to participate in the RT program. Accordingly, your signature on this agreement signifies your concurrence to complete the prescribed course of RT (enclosure) within the assigned period of time. To complete this RT program successfully, you must comply with the following:

1. You must obtain the required training from designated/approved source(s). The source(s) is approved/designated by the FPM/RFPOC who drafted your RT Agreement.
2. All expenses/costs incurred by or as a result of the prescribed training must be borne by you.
3. Once training begins, you are required to make periodic progress reports to the FPM/RFPOC assigned to your RT program.
4. You agree not to conduct operations in the area(s) identified in this RT Agreement until successful completion of the RT. If you continue to conduct operations in the areas identified in this RT Agreement and have a similar deviation, this may be deemed as unwillingness to comply and would result in RT being withdrawn.

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Figure 15-6-1D. Sample Remedial Training Agreement Letter (Continued)

5. You are required to complete all elements of the RT curriculum and meet acceptable completion standards no later than [Date RT to be completed by].
6. You are required to provide the FPM/RFPOC with written documentation indicating satisfactory completion of the prescribed RT. You must provide the original (or certified copy) of a written certification issued by the RT Provider(s). The written certification must describe each element of the curriculum for which instruction was given and the level of proficiency you have achieved.

Any endorsements will include the Training Provider's name, authorizing signature, certificate number (as appropriate), date, scope and duration of training provided to include the number of hours accomplished (as applicable). A certificate of satisfactory completion will suffice for prescribed Web-based (online course) training (e.g., www.FAASafety.gov, Pilot Proficiency Program (WINGS), Aviation Maintenance Technician (AMT), Aircraft Owners and Pilots Association–Air Safety Foundation (AOPA-ASF), etc.).

If the objectives of this RT agreement cannot be successfully reached, you may be referred back to Inspector [Investigating ASI's name] to be withdrawn from the RT Program.

1 of 2

I, [Insert Airman's Name], agree to comply with the terms and conditions specified in this Remedial Training (RT) Agreement. I understand that failure to complete any element of this agreement within the prescribed period of time may result in my removal from the RT program and administrative or legal enforcement action and/or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a).

_____	_____	_____
Airman Signature	Certificate Number	Date
_____	XXX-XXX	_____
[Insert FPM/RFPOC Name]	Routing Number	Date

FAASTeam Program Manager

Regional FAASTeam Point of Contact

Enclosure: Remedial Training Curriculum

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Figure 15-6-1D. Sample Remedial Training Agreement Letter (Continued)

Sample Remedial Training Curriculum Enclosure

REMEDIAL TRAINING CURRICULUM – Sample 1 (see Figures 15-6-1N and 15-6-1P for more samples)

Objective: To improve the airman's knowledge and pilot proficiency in flight planning with emphasis on fuel management, cross-country flight planning, the use of navigation charts, and the use of the GNS 430 for cross-country navigation.

Content:

A. A minimum of 4 hours of ground instruction on the following subjects:

1. FAASafety.gov Learning Center Course, "The Art of Aeronautical Decision Making" by AFS-800 (online course). (1.0 hours)
2. Cross-country flight planning with emphasis on Cirrus SR-22 performance/fuel consumption charts. (1.5 hours)
3. Programming and use of the GNS 430 for visual flight rules (VFR) cross-country operations. (1.0 hours)
4. Cirrus SR-22 emergency procedures – engine failure/loss of power. (0.5 hours)

B. A minimum of 4 hours of flight instruction to include:

1. Flight Task Activity Number A100125-09 (Airplane Single-Engine Land (ASEL)-Navigation) found in the Pilot Proficiency Program (WINGS) on FAASafety.gov. Activity to be demonstrated using appropriate navigation charts and the GNS 430 when applicable.
2. Demonstrate proficiency utilizing the GNS 430 during flight to include in-flight changes and the ability to find the nearest airports.
3. Cirrus SR-22 emergency procedures – engine failure/loss of power.

Completion Standards: The training will have been successfully completed when the assigned remedial training (RT) provider, by oral testing and practical demonstration, certifies that the airman has completed instruction in the above mentioned tasks in accordance with the RT curriculum. When applicable, the above mentioned tasks will be completed to the level of proficiency stated in the Private Pilot Practical Test Standards (PTS) (the current edition of FAA-S-8081-14) [insert applicable FAA PTS reference]. Documentation must be provided to the FAA Safety Team (FAASTeam) Program Manager (FPM) as stated in the RT agreement.

I agree to comply with the terms and conditions specified in this letter. I understand that failure to complete any element of this agreement within the prescribed period of time may result in my removal from the RT program and administrative or legal enforcement action and/or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a). If legal enforcement action is taken, I waive my right under section 821.33 of the National Transportation Safety Board's (NTSB) Rules of Practice (Title 49 of the Code of Federal Regulations (49 CFR) part 821, § 821.33), to move to dismiss the FAA's complaint as stale.

[Insert name] Date: [Insert date]

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Figure 15-6-1E. Notification of Successful Remedial Training Completion

Federal Aviation Administration

MEMORANDUM

Date: October 1, 2015

To: [Insert Name], Aviation Safety Inspector, [Insert FSDO Routing Symbol]

From: [Insert Name], FAASTeam Program Manager (FPM), Regional FAASTeam Point of Contact (RFPOC) [Insert Phone]

Through: [Insert Name], FSDO Manager, [Insert FSDO Routing Symbol], [Insert Phone]

Subject: Remedial Training – [Insert Airman's Name]

Notification of Successful Remedial Training Completion

This Memorandum serves as notification that Airman [Insert Airman's Name], referred by you to the FAASTeam on [Insert Date of RT Referral], successfully completed all of the minimum requirements of the Remedial Training Agreement on [Insert Date of RT Completion].

I have reviewed the airman's Remedial Training progress and I am satisfied that all of the training objectives requested in your referral have been satisfied. Additionally, I have concurrence of completion from the Remedial Training Provider.

If you concur, I will return all pertinent original documentation to you as the Referring/Investigating ASI.

Please refer to Program Tracking and Reporting Subsystem ID# [Insert PTRS ID#] for pertinent details regarding the FAASTeam response to your referral.

This memorandum concludes the FAASTeam action herein.

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Figure 15-6-1F. Notification of Failure of Remedial Training Completion

Federal Aviation Administration

MEMORANDUM

Date: October 1, 2015

To: [Insert Name], Aviation Safety Inspector, [Insert FSDO Routing Symbol]

From: [Insert Name], FAASTeam Program Manager (FPM), Regional FAASTeam Point of Contact (RFPOC) [Insert Phone]

Through: [Insert Name], FSDO Manager, [Insert FSDO Routing Symbol], [Insert Phone]

Subject: Remedial Training – [Insert Airman's Name]

Notification of Failure of Remedial Training Completion

This Memorandum serves as notification that Airman [Insert Airman's Name], referred by you to the FAASTeam on [Insert Date of RT Referral], has failed to successfully complete the minimum requirements of the Remedial Training Agreement.

I have reviewed the airman's Remedial Training progress and discussed any shortcomings with the selected Remedial Training Provider(s) and the airman. Because the airman has failed to meet the expectations of the Agreement within the allotted timeframe, Remedial Training has failed to achieve the desired results in this instance.

If you concur, I will return all pertinent original documentation to you as the Referring/Investigating ASI. Please refer to Program Tracking and Reporting Subsystem ID# [Insert PTRS ID#] for pertinent details regarding the FAASTeam response to your referral.

This memorandum concludes the FAASTeam action herein.

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Figure 15-6-1G. Notification of Voluntary Airman Withdrawal

Federal Aviation Administration

MEMORANDUM

Date: October 1, 2015

To: [Insert Name], Aviation Safety Inspector, [Insert FSDO Routing Symbol]

From: [Insert Name], FAASTeam Program Manager (FPM), Regional FAASTeam Point of Contact (RFPOC) [Insert Phone]

Through: [Insert Name], FSDO Manager, [Insert FSDO Routing Symbol], [Insert Phone]

Subject: Remedial Training – [Insert Airman's Name]

Notification of Voluntary Airman Withdrawal

On [Insert Effective Date], Airman [Insert Airman's Name] voluntarily withdrew from the Remedial Training Program. You had referred this airman to the FAASTeam on [Insert Date of RT Referral].

The airman has stated his/her reason(s) for withdrawal is/are [State Reason(s) for Withdrawal].

I am returning all pertinent original documentation to you as the Referring/Investigating ASI. Please refer to Program Tracking and Reporting Subsystem ID# [Insert PTRS ID#] for pertinent details regarding the FAASTeam response to your referral.

This memorandum concludes the FAASTeam action herein.

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Figure 15-6-1H. Notification of Recommended Airman Withdrawal

Federal Aviation Administration

MEMORANDUM

Date: October 1, 2015

To: [Insert Name], Aviation Safety Inspector, [Insert FSDO Routing Symbol]

From: [Insert Name], FAASTeam Program Manager (FPM), Regional FAASTeam Point of Contact (RFPOC) [Insert Phone]

Through: [Insert Name], FSDO Manager, [Insert FSDO Routing Symbol], [Insert Phone]

Subject: Remedial Training – [Insert Airman's Name]

Notification of Recommended Airman Withdrawal

This Memorandum serves as recommendation that the Remedial Training offer made to Airman [Insert Airman's Name], referred by you to the FAASTeam on [Insert Date of RT Referral], be withdrawn.

I have reviewed the airman's Remedial Training progress and discussed any shortcomings with the selected Remedial Training Provider(s) and the airman. Because the airman has failed to meet Remedial Training expectations, it is my recommendation that you withdraw airman's Remedial Training Referral and proceed with appropriate follow-up action as applicable.

The specific reason(s) for this recommendation is/are [State Reason(s) for Recommendation].

If you concur, I will return all pertinent original documentation to you as the Referring/Investigating ASI. Please refer to Program Tracking and Reporting Subsystem ID# [Insert PTRS ID#] for pertinent details regarding the FAASTeam response to your referral.

This memorandum concludes the FAASTeam action herein.

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Figure 15-6-1J. Sample Remedial Training Completion Certification from Remedial Training Provider

TO: Jane L. Smith
FAASTeam Program Manager (or Regional FAASTeam Point of Contact)
Blythe Flight Standards District Office
2600 Cactus Blvd.
Blythe, CA 92225

FROM: _____
Remedial Training Provider's Name (print)

_____
Address

_____
City State ZIP

This is to certify that Mr. John D. Doe has satisfactorily completed the following tasks from the remedial training (RT) program curriculum dated [RT agreement signed date] (online courses not shown). I have given Mr. Doe training on these tasks from the prescribed RT curriculum and the level of proficiency achieved by Mr. Doe is described below. Proficiency level was determined by practical demonstration and oral testing.

Objective: To improve the airman's knowledge and pilot proficiency in flight planning with emphasis on fuel management, cross-country flight planning, the use of navigation charts and the use of the Garmin GNS 430 for cross-country navigation.

Content:

A. Four hours of ground instruction on the following subjects:

1. Cross-country flight planning with emphasis on Cirrus SR-22 performance/fuel consumption charts. (hours, e.g., 1.2)
2. Programming and use of the GNS 430 for visual flight rules (VFR) cross-country operations. (hours)
3. Cirrus SR-22 emergency procedures – engine failure/loss of power. (hours)

B. Four hours of flight instruction consisting of the following tasks:

1. Flight Task Activity Number A100125-09 (Airplane Single-Engine Land (ASEL)-Navigation) found in the Pilot Proficiency Program (WINGS) on FAASafety.gov. Activity to be demonstrated using appropriate navigation charts and the GNS 430 when applicable (Activity No. A100125-09 validated in WINGS). (hours)
2. Demonstrate proficiency utilizing the GNS 430 during flight to include in-flight changes and the ability to find the nearest airports. (hours)
3. Cirrus SR-22 emergency procedures – engine failure/loss of power. (hours)

1 of 2

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Figure 15-6-1J. Sample Remedial Training Completion Certification from Remedial Training Provider (Continued)

Level of Proficiency Achieved: The above tasks were completed to the level of proficiency stated in the applicable Practical Test Standards (PTS) (FAA-S-8081-[insert standard used]). Scope and comments are attached.

Signature: _____

Applicable Certificate No.: _____ Expires: _____

Date signed: _____

2 of 2

Figure 15-6-1K. Sample Letter of Completion – Flight Operations

[Insert date]

[Insert name]
[Insert address]

Dear [Insert name]:

This letter is in regard to [enter brief description]. As a result of our discussion with you on [insert date], you agreed to complete a program of remedial training (RT) as an appropriate corrective action. You have submitted evidence showing satisfactory completion of [enter training agreement requirements, such as "6 hours of ground instruction and 3 hours of flight instruction"] in the subjects and procedures specified in your training agreement.

Based on your satisfactory completion of the RT program, additional FAA action will not be pursued. In place of such action, we are issuing this Letter of Completion. This letter constitutes neither an admission nor an adjudication of a violation.

We appreciate your cooperation in this matter and expect your full compliance with the regulations in the future.

Sincerely,

[Insert name] Aviation Safety Inspector

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Figure 15-6-1L. Sample Letter of Rescission – Flight Operations

[Insert date]

[Insert name]
[Insert address]

Dear [Insert name]:

This is to inform you that we find you have not complied with the remedial training (RT) agreement executed on [insert date], requiring that you complete specified RT. Specifically, your supervising flight instructor, [insert name], advised us that you have not [insert description of RT agreement conditions not met, such as "begun the flight instruction in navigation procedures you agreed to have completed"] by [insert name of training provider]. Further, you were scheduled to participate in [insert description of other items if necessary] but you did not attend or advise us of any rescheduling of the training elements per the terms of the RT agreement.

In view of your failure to complete the terms of the RT agreement, we have terminated your participation in the RT program effective this date. We are referring you back to the [insert Flight Standards District Office (FSDO)] for their followup.

Sincerely,

[Insert name]
FAASTeam Program Manager/Regional FAASTeam Point of Contact

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Figure 15-6-1M. Privacy Act Notice

PRIVACY ACT NOTICE

This Notice is provided in accordance with Section (e)(3) of the Privacy Act, 5 U.S.C. Section 552a(e)(3), and concerns the information requested in the correspondence or form with which this Notice is enclosed.

A. Authority: This information is solicited pursuant to 49 U.S.C. § 40113(a) and the regulations issued under that statutory provision codified in 14 CFR part 13, Investigative and Enforcement Procedures.

B. Principal Purposes:

1. The request for information is intended to provide you with an opportunity to participate in the investigation of an apparent deviation from the Federal Aviation Regulations, or other statutes, standards, or procedures.

2. The requested information will be used to help determine the root cause(s) of the subject event, identify safety concerns, determine whether or not there has been an apparent deviation from the Federal Aviation Regulations or other statutes, standards, or procedures, and what, if any, action should be taken. The requested information will be used for safety risk assessment, risk mitigation, and for finding and fixing safety issues in the National Airspace System (NAS).

C. Routine uses: Records from this system of records may be disclosed in accordance with the routine uses that appear in the Department of Transportation (DOT)/FAA 847, Aviation Records on Individuals, as published in the Federal Register at 75 Fed. Reg. 68,849 (current edition), also available at https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices.

D. Disclosure: Submission of information is voluntary. The FAA cannot impose any penalties upon you if you choose not to respond to this information request. If you choose not to respond, however, the FAA will make determinations about possible action for this matter without the benefit of your comments.

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Figure 15-6-1N. Sample Remedial Training Curriculum – Maintenance Technician

REMEDIAL TRAINING CURRICULUM – MAINTENANCE TECHNICIAN (Sample)

Objective: To improve the airman's knowledge and Aircraft Maintenance proficiency in recordkeeping requirements with emphasis on the consequences in failure to follow procedures and addressing Airworthiness Directives (AD).

Content:

A. A minimum of 4 hours of education on the following subjects:

1. FAASafety.gov Course, "Failure to Follow Procedures – INSPECTIONS," by the FAA Safety Team (FAASTeam)/Achieve (online course) and complete the end of course exam (corrected to 100 percent). (2 hours)
2. Attend the upcoming FAASTeam Safety Seminar, "Decoding Airworthiness Directives (AD)," being conducted [state location, date, and time]. (2 hours)

B. A minimum of 4 hours of individual instruction with the appointed training provider to include:

1. Tasks detailed in the Aviation Mechanic General (AMG), Practical Test Standards (PTS), FAA-S-8081-26, Section I, Maintenance Forms and Records, Objective 2 to the demonstration of Skill (practical) to the Level 3 Performance Standard. (2 hours)
2. Tasks detailed in the AMG, PTS, FAA-S-8081-26, Section I, Maintenance Forms and Records, Objective 3(c) and 3(e) to the demonstration of Skill (practical) to the Level 3 Performance Standard. (2 hours)

Completion Standards: The training will have been successfully completed when the assigned remedial training (RT) provider, by oral testing and practical demonstration, certifies that the airman has completed instruction in the above mentioned tasks in accordance with the RT curriculum. Documentation must be provided to the FAASTeam Program Manager (FPM)/Regional FAASTeam Point of Contact (RFPOC) as stated in the RT agreement.

Completion Date: [insert date]

Failure to complete any element of this agreement within the prescribed period of time will result in your removal from the RT program and commencement of other appropriate FAA reexamination or enforcement action.

[Insert name] Date: [insert date]
FAASTeam Program Manager/Regional FAASTeam Point of Contact

I agree to comply with the terms and conditions specified in this letter. I understand that failure to complete any element of this agreement within the prescribed period of time may result in my removal from the RT program and administrative or legal enforcement action and/or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a). If legal enforcement action is taken, I waive my right under section 821.33 of the National Transportation Safety Board's (NTSB) Rules of Practice (Title 49 of the Code of Federal Regulations (49 CFR) part 821, § 821.33), to move to dismiss the FAA's complaint as stale.

[Insert name] Date: [insert date]

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Figure 15-6-1P. Sample Remedial Training Curriculum – Flight Operations

REMEDIAL TRAINING CURRICULUM – FLIGHT OPERATIONS (Sample)

Syllabus Objective: To improve the airman's knowledge and proficiency in visual flight rules (VFR) radio navigation, cross-country flying, and operating procedures in terminal control areas (TCA).

Syllabus Content:

(1) A minimum of 6 hours of ground instruction on the following subjects:

(a) Reading aeronautical charts.

(b) Operation of navigation equipment (both Global Positioning System (GPS) and Very high frequency Omnidirectional Range (VOR)).

(c) Limitations of navigation equipment (both GPS and VOR).

(d) Cross-country navigation using pilotage and radio navigation (both GPS and VOR).

(e) Air traffic control (ATC) procedures for operating in TCAs under VFR.

(2) At least one visit to the Metropolis TCA radar facility to participate in "Operation Rain Check." Travel time, to and from the Metropolis Airport, cannot be credited toward the 6-hour ground instruction requirement.

(3) Three hours of flight instruction in the following procedures:

(a) Operation of navigation equipment (both GPS and VOR).

(b) Cross-country navigation using pilotage and radio navigation (both GPS and VOR).

(c) VFR operating procedures in TCAs.

Completion Standards: The training will have been successfully completed when, by oral testing and practical demonstration, the airman demonstrates proficiency in the above subjects and procedures in accordance with the applicable practical test standards (PTS) to the supervising instructor.

Completion Date: [insert date]

Failure to complete any element of this agreement within the prescribed period of time will result in your removal from the remedial training (RT) program and commencement of other appropriate Federal Aviation Administration (FAA) reexamination or enforcement action.

[Insert name] Date: [insert date]
FAASTeam Program Manager/Regional FAASTeam Point of Contact

I agree to comply with the terms and conditions specified in this letter. I understand that failure to complete any element of this agreement within the prescribed period of time may result in my removal from the RT program and administrative or legal enforcement action and/or reexamination under Title 49 of the United States Code (49 U.S.C.) § 44709(a). If legal enforcement action is taken, I waive my right under section 821.33 of the National Transportation Safety Board's (NTSB) Rules of Practice (Title 49 of

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the Code of Federal Regulations (49 CFR) part 821, § 821.33), to move to dismiss the FAA's complaint as stale.

[Insert name] Date: [insert date]

15-6-1-17 through 15-6-1-31 RESERVED.

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VOLUME 16 UNMANNED AIRCRAFT SYSTEMS

CHAPTER 3 AIRMEN CERTIFICATION

Section 1 Remote Pilots

16-3-1-1 OBJECTIVE. This section provides guidance to process an application for a remote pilot certificate with a small Unmanned Aircraft Systems (sUAS) rating for civil sUAS operations. Once it is determined the applicant meets the eligibility requirements in accordance with Title 14 of the Code of Federal Regulations (14 CFR) part 107, Small Unmanned Aircraft Systems, the application can be processed. Part 107 governs civil operations; therefore, operations conducted as public or hobby and recreation are not subject to this section. The successful completion of this task results in the processing of the applicant's application and the issuance of a temporary operating certificate, as appropriate.

16-3-1-3 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODE. 1509.

16-3-1-5 REMOTE PILOT ELIGIBILITY REQUIREMENTS FOR INITIAL CERTIFICATION. A person applying for a remote pilot certificate with an sUAS rating must meet and maintain, as applicable, the following eligibility requirements:

- Be at least 16 years of age.
- Be able to read, speak, write, and understand the English language. However, the Federal Aviation Administration (FAA) may make an exception if the person is unable to meet one of these requirements due to medical reasons, such as hearing impairment.
- Be in a physical and mental condition that would not interfere with the safe operation of an sUAS.
- Pass the initial aeronautical knowledge written examination at an FAA-approved knowledge testing center (KTC). However, a person who already holds an Airman Certificate issued under 14 CFR part 61 and has successfully completed a flight review in accordance with part 61, § 61.56 (or meets other criteria in § 61.56) within the previous 24 calendar-months is only required to successfully complete an online training course, ALC-451, Part 107 small Unmanned Aircraft Systems (sUAS), available at https://www.FAASafety.gov. (Refer to part 107, § 107.65.)

NOTE: Additionally, the Transportation Security Administration (TSA) screens all pilot certificate applicants and holders.

NOTE: Unmanned Aircraft Systems (UAS) pilot time may not be used to meet the aeronautical experience requirements towards the issuance of a pilot certificate under part 61.

16-3-1-7 APPLICATION PROCEDURE. This paragraph provides guidance on how a person can apply for a remote pilot certificate.

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A. Applicants Without a Part 61 Certificate. A person who does not hold a part 61 pilot certificate, a part 61 Airman Certificate holder[30] who does not have a current flight review (or other criteria) in accordance with § 61.56, or a part 61 Airman Certificate holder who voluntarily elects to use this process must:

1) Pass an initial aeronautical knowledge test. An applicant must go to a KTC to take and pass the FAA sUAS knowledge test (Unmanned Aircraft General (UAG)).

2) Complete the FAA Remote Pilot Certificate and/or Rating Application for a remote pilot certificate (FAA Form 8710-13).

a) Option 1 (Online Form). This is the fastest and simplest method. The FAA Form 8710-13 application should be completed online using the electronic FAA Integrated Airman Certification and/or Rating Application (IACRA) system (https://iacra.faa.gov/iacra/). The applicant must have already passed an initial aeronautical knowledge test. Once registered with IACRA, he or she will log in with their username and password. The applicant will click on "Start New Application" and 1) Application Type "Pilot," 2) Certifications "Remote Pilot," 3) "Other Path Information," and 4) "Start Application." The applicant will continue through the application process and, when prompted, enter the 17-digit Knowledge Test Exam ID from the knowledge test in IACRA. It may take up to 48 hours from the test date for the knowledge test to appear in IACRA. The KTC test proctor will be the one that verified the identity of the applicant. Once the applicant completes the online application in IACRA, he or she will sign the application electronically and submit it to the Airman Registry for processing. No FAA representative will be required to sign the application if the applicant was able to self-certify.

NOTE: When the applicant uses this online option, the application will be transmitted electronically from the applicant to the Airman Registry. The only electronic signature that will be reflected on the IACRA application will be the applicant's. The applicant will then receive a confirmation email once his or her application has completed the TSA vetting process. The email will provide information that will allow the applicant to log into the IACRA system and print a copy of the temporary certificate.

b) Option 2 (Paper Application). An applicant could also submit a paper application. If the applicant chooses the paper method, the original initial aeronautical knowledge test report must be mailed with the application to the following address:

DOT/FAA
Airmen Certification Branch (AFS-760)
P.O. Box 25082
Oklahoma City, OK 73125

[30] *Reference to "part 61 Airman Certificate holders" specifically includes sport pilot, recreational pilot, private pilot, commercial pilot, and airline transport pilot certificates. It does not include a student pilot certificate.*

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NOTE: A Temporary Airman Certificate will not be provided to the remote pilot applicant if they do not hold a part 61 certificate. For this reason, it would be in the applicant's best interest to utilize Option 1 (IACRA system) instead of the paper method, in order to receive a Temporary Airman Certificate once the application has completed the TSA vetting process.

3) Receive permanent remote pilot certificate once all other FAA internal processing is complete.

B. Applicants with a Part 61 Pilot Certificate. Instead of the process described above, a person who holds a part 61 pilot certificate and meets the criteria of § 61.56, has completed a flight review, or meets the criteria in § 61.56 within the previous 24 calendar-months may elect to apply using the following process:

1) Complete the online course (Part 107 small Unmanned Aircraft Systems (sUAS), ALC-451), located within the FAA Safety Team (FAASTeam) Web site (https://www.FAASafety.gov), and receive a completion certificate.

2) Complete the Remote Pilot Certificate and/or Rating Application (FAA Form 8710-13).

a) Option 1 (Online Application). In almost all cases, the application should be completed online using the electronic FAA IACRA system (https://iacra.faa.gov/iacra/). The applicant must include verification that he or she completed the online course or passed an initial aeronautical knowledge test. The applicable official document(s) must be uploaded into IACRA either by the applicant or the certifying officer.

b) Option 2 (Paper). The application may be completed on paper. Using this method, the certificate of completion for the online course or original initial aeronautical knowledge test report must be included with the application. Please note that the processing time will be increased if a paper application is used.

3) Contact a Flight Standards District Office (FSDO), an FAA Designated Pilot Examiner (DPE), an Airman Certification Representative (ACR), or an FAA certificated flight instructor (CFI) to make an appointment to validate the applicant's identification. The applicant must present the completed FAA Form 8710-13 along with the online course completion certificate or knowledge test report (as applicable) and proof of a current flight review or other criteria required by § 61.56. The FAA Form 8710-13 application will be signed by the applicant after the FSDO, DPE, ACR, or CFI examines the applicant's photo identification and verifies the applicant's identity. The FAA representative will then sign the application. The identification presented must include a photograph of the applicant, the applicant's signature, and the applicant's actual residential address (if different from the mailing address). This information may be presented in more than one form of identification. Acceptable methods of identification include, but are not limited to, U.S. drivers' licenses, government identification cards, passports, and military identification cards (refer to the current edition of Advisory Circular (AC) 61-65, Certification: Pilots and Flight and Ground Instructors). If using paper or the IACRA method, an

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appropriate FSDO representative, a DPE, or an ACR will issue the applicant a Temporary Airman Certificate.

> NOTE: A CFI is not authorized to issue a temporary certificate. If using IACRA and the applicant is utilizing a CFI as the FAA representative, the applicant can print their own Temporary Airman Certificate after receiving an email from the FAA notifying them that it is available. If using the paper method and the applicant is utilizing a CFI as the FAA representative, the applicant will not be issued a Temporary Airman Certificate. Once the FSDO has signed and approved the application, it will be mailed to the Airman Registry for the issuance of the permanent certificate.

4) Receive the permanent remote pilot certificate once all other FAA internal processing is complete.

16-3-1-9 TEMPORARY AIRMAN CERTIFICATE. Aviation safety inspectors (ASI), DPEs, and ACRs will fill out FAA Form 8060-4, Temporary Airman Certificate, in the same manner as any other Temporary Airman Certificate. Block IX should be completed with "Remote Pilot." Block XII will be completed with "small unmanned aircraft system" in the Ratings and Limitations section. No limitations should be inserted at this time. All other blocks will be filled out in the same manner as any other Temporary Airman Certificate.

Figure 16-3-1A. Sample FAA Form 8060-4, Temporary Airman Certificate

I. UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
II. TEMPORARY AIRMAN CERTIFICATE
III. CERTIFICATE NO. Pending
THIS CERTIFIES THAT
IV. Susan May Remote
V. 123 Main St.
Moore, OK 73170
DATE OF BIRTH 10/30/1985 | HEIGHT 64 IN | WEIGHT 125 | HAIR Brown | EYES Blue | SEX F | NATIONALITY USA VI.
IX. has been found to be properly qualified and is hereby authorized in accordance with the conditions of issuance on the reverse of this certificate to exercise the privileges of
Remote Pilot
RATINGS AND LIMITATIONS
XII.
Small Unmanned Aircraft System
XIII.
THIS IS ☒ AN ORIGINAL ISSUANCE ☐ A REISSUANCE OF THIS GRADE OF CERTIFICATE
DATE OF SUPERSEDED AIRMAN CERTIFICATE
BY DIRECTION OF THE ADMINISTRATOR
EXAMINER'S DESIGNATION NO. OR INSPECTOR'S REG. NO. EA01/1234567
X. DATE OF ISSUANCE 08/29/2016
X. SIGNATURE OF EXAMINER OR INSPECTOR Miles Parker Inspector
Miles Parker Inspector
DATE DESIGNATION EXPIRES ----------
VII. AIRMAN'S SIGNATURE
FAA Form 8060-4 (8-79) USE PREVIOUS EDITION
Electronic Forms (PDF)

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16-3-1-11 SECURITY DISQUALIFICATION. After the FAA receives the application, the TSA will automatically conduct a background security screening of the applicant prior to issuance of a remote pilot certificate. If the security screening is successful, the FAA will issue a permanent remote pilot certificate. If the security screening is not successful, the applicant will be disqualified and a temporary pilot certificate, if issued, will be revoked. Individuals who believe that they improperly failed a security threat assessment may appeal the decision to the TSA.

16-3-1-13 AERONAUTICAL KNOWLEDGE TESTS (INITIAL AND RECURRENT). It is important to have and retain the knowledge necessary to operate a small unmanned aircraft in the National Airspace System (NAS). This aeronautical knowledge can be obtained through self-study, taking an online training course, taking an in-person training course, or any combination thereof. The FAA has published the Remote Pilot—Small Unmanned Aircraft Systems Airman Certification Standards (https://www.faa.gov/training_testing/testing/acs) that provides the necessary reference material.

NOTE: The below information regarding initial and recurrent knowledge tests applies to persons who do not hold a current part 61 Airman Certificate.

A. Initial Test. As described above, a person applying for a remote pilot certificate with an sUAS rating must pass the initial UAG knowledge test given by an FAA-approved KTC. The initial knowledge test will cover aeronautical knowledge areas listed below and referenced in § 107.73:

1) Applicable regulations relating to sUAS rating privileges, limitations, and flight operation;

2) Airspace classification, operating requirements, and flight restrictions affecting small unmanned aircraft operation;

3) Aviation weather sources and effects of weather on small unmanned aircraft performance;

4) Small unmanned aircraft loading;

5) Emergency procedures;

6) Crew Resource Management (CRM);

7) Radio communication procedures;

8) Determining the performance of small unmanned aircraft;

9) Physiological effects of drugs and alcohol;

10) Aeronautical decisionmaking and judgment;

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11) Airport operations; and

12) Maintenance and preflight inspection procedures.

NOTE: A part 61 Airman Certificate holder who meets the criteria in § 61.56 within the previous 24 calendar-months may complete an initial online training course instead of taking the knowledge test.

B. Recurrent Test. After a person receives a remote pilot certificate with an sUAS rating, that person must retain and periodically update the required aeronautical knowledge to continue to operate a small unmanned aircraft in the NAS. To continue exercising the privileges of a remote pilot certificate, the certificate holder must pass a recurrent aeronautical knowledge test within 24 calendar-months after passing the initial UAG knowledge test. A part 61 pilot certificate holder who has completed a flight review within the previous 24 calendar-months may complete a recurrent online training course instead of taking the knowledge test at a KTC. Table 16-3-1A contains examples illustrating an individual's possible certification and renewal cycles.

Table 16-3-1A. Examples of Certification and Renewal Cycles

If a person passes the initial knowledge test on September 10, 2016.	then	The recurrent knowledge test must be passed no later than September 30, 2018, which does not exceed 24 calendar-months.
If a person passes the initial knowledge test on September 10, 2016, but does not pass the recurrent knowledge test until October 5, 2018.	then	The person may not exercise the privileges of the remote pilot certificate between October 1, 2018, and October 5, 2018, when the test is passed. The next recurrent knowledge test must be passed no later than October 31, 2020, which does not exceed 24 calendar-months.
If a person passes the knowledge test on September 10, 2018, and elects to take the recurrent knowledge test early, on July 15, 2020, instead of waiting until September, 2020.	then	The next recurrent knowledge test must be passed no later than July 31, 2022, to continue exercising the privileges of the remote pilot certificate.

16-3-1-15 AERONAUTICAL KNOWLEDGE RECENCY (§ 107.65). A person may not operate an sUAS unless that person has completed one of the following, within the previous 24 calendar-months:

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- Passed an initial aeronautical knowledge test covering the areas of knowledge specified in §§ 107.73(a) and 107.74(a); or
- Passed a recurrent aeronautical knowledge test covering the areas of knowledge specified in §§ 107.73(b) and 107.74(b).

NOTE: Test Providers: KTCs will administer initial and recurrent examinations provided by the FAA. In order to take an aeronautical knowledge test, an applicant will be required to schedule an appointment with the KTC and provide proper government-issued photo identification to the KTC on the day of the scheduled test. The location of the nearest KTC can be found at http://www.faa.gov/training_testing/testing/media/test_centers.pdf.

16-3-1-17 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of part 107 and FAA policies, and qualification as an ASI (Operations) or aviation safety technician (AST).

B. Coordination. This task may require coordination with the Airman Records section of AFS-760.

16-3-1-19 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR Part 107.
- PTRS Procedures Manual (PPM).
- AC 107-2, Small Unmanned Aircraft Systems (sUAS).
- Airman Certification Standards (ACS), https://www.faa.gov/training_testing/testing/acs/.

B. Forms:

- FAA Form 8000-36, Program Tracking and Reporting System Data Sheet, or electronic PTRS.
- FAA Form 8710-13, Remote Pilot Certificate and/or Rating Application.

C. Job Aids. None.

16-3-1-21 through 16-3-1-33 RESERVED.

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VOLUME 16 UNMANNED AIRCRAFT SYSTEMS

CHAPTER 5 SURVEILLANCE

Section 2 Site Visits of UAS Operations

16-5-2-1 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Operations: 1623.

B. Maintenance: 3631.

C. Avionics: 5631.

16-5-2-3 OBJECTIVE. This section contains direction and guidance to be used by inspectors for conducting site visits. This chapter provides guidance for conducting surveillance of an Unmanned Aircraft System (UAS) operating under:

- Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 (FMRA), Section 333, Special Rules for Certain Unmanned Aircraft Systems;
- Civil aircraft, Title 14 of the Code of Federal Regulations (14 CFR) part 107;
- Public aircraft; and
- Model aircraft.

A. General Inspection Objectives. The goal of UAS surveillance is to provide the FAA with information about the effectiveness of the operator's system, operation, and qualification. The objectives of an aviation safety inspector (ASI) conducting a site visit inspection are as follows:

- To evaluate individual crewmembers in the performance of their duties and responsibilities;
- To assess the effectiveness of the operator's training;
- To assess the effectiveness of operational procedures, manuals, or checklists;
- To assess the effectiveness of the operator's equipment;
- If applicable, to evaluate adherence to the conditions and limitations contained in the grant of exemption;
- If applicable, to evaluate adherence to the requirements in the Air Traffic Organization (ATO)-issued Certificate of Waiver or Authorization (CoW/A); and
- To evaluate the quality of maintenance and the degree of compliance with FAA policy and regulations.

B. Primary Objective. The primary objective of a site visit is to provide inspectors with the opportunity to evaluate an operation while the crewmembers operate the UAS.

1) A site visit is an effective method for evaluating an operator's ability to prepare both the UAS and crew for a mission.

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2) It should be conducted to determine whether the UAS and crew are adequately prepared for the flight, as well as evaluating the post-flight and/or turnaround procedures and crewmember(s) compliance with established procedures, regulations, and safe operating practices.

3) Completion of this task is documented in Flight Standards District Office (FSDO) files and National PTRS as satisfactory, informational, or unsatisfactory performance by the operator.

16-5-2-5 GENERAL. This section contains direction and guidance to be used by inspectors for conducting site visits. It is important that ASIs become familiar with the type of UAS equipment to be inspected before performing the site visit. This can be accomplished through research and on-the-job training (OJT). Because ASIs possess various levels and types of expertise and experience, ASIs who require additional information or guidance on a given system or associated equipment should request assistance from an ASI/FSDO or ASI/Regional Office (RO) with knowledge and experience relevant to the information needed or requested.

16-5-2-7 COORDINATION. Although not required, site visits should be coordinated with the UAS operator in advance to ascertain location and time of the operation. Inspection activities must not delay, interfere with, or impede the UAS operations. Additionally, the ASI should communicate any requests for documentation or records he/she will review during the visit. The remote pilot in command (PIC) or an appropriate representative of the operator should be present during site visits. It is important to coordinate with management, crewmembers, and maintenance personnel.

16-5-2-9 LOCATION OF INSPECTION. A UAS operations site is seldom located at the operator's place of business. The locations may differ as widely as the UAS operator's activities differ, but documents that are necessary to show compliance with regulations or authorizations must be available for ASIs inspection.

16-5-2-11 INITIATION AND PLANNING. Prior to conducting a site visit, the inspector should review applicable information for the UAS operator (e.g., the UAS operator's Certificate of Authorization (CoA), exemptions issued to the operator, part 107 Certificates of Waiver (CoW) issued to the operator, PTRS reports, and accident/incident files) as follows:

- If applicable, the grant of exemption and related documents, if any, that specify the holder's conditions and limitations under the terms of the exemption (e.g., exemption documents may include a requirement to adhere to the procedures addressed in a Motion Picture and Television Operations Manual (MPTOM), or may state "Operations Manual" and specify requirements separately);
- CoA: Focus on the operating area, altitude limit(s) authorized, and may include specific distances from airports;
- Part 107 CoW: Specifies special provisions under the terms of the waiver;
- Part 107 airspace authorizations: Specifies certain controlled airspace authorized for the operation;
- Letter of authorization/agreement (LOA): If applicable, regarding operations in certain airspace or near airports;

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- Type of UAS authorized;
- Charts, documents, and potential impacts concerning the proposed area of operation;
- Correspondence between the operator and FAA; and
- Previous site visit reports and records for possible problem areas, and incident history.

16-5-2-13 MAINTENANCE RECORDS. Inspectors should request that the operator present maintenance records (if applicable) for review.

16-5-2-15 ACCIDENT AND INCIDENT NOTIFICATION. All UAS accidents and incidents involving death or serious injury, or where the unmanned aircraft has a maximum gross takeoff weight of 300 pounds (lbs) or greater and sustains substantial damage must be reported to the National Transportation Safety Board (NTSB) in accordance with Title 49 of the Code of Federal Regulations (49 CFR) part 830. Additional reporting requirements may be required if in a grant of exemption and ATO-issued CoA. Inspectors should be aware of the following NTSB interpretations:

- Preservation of aircraft wreckage, mail, cargo, and records involving all civil and certain public aircraft accidents, as specified in 49 CFR part 830, apply to UAS; and
- Once the operator provides notification, the NTSB may give approval to move or retrieve the aircraft and related support equipment, etc. This includes the operator's personal computer, or tablet, used as a Ground Control Station (GCS) (similar to a General Aviation (GA) pilot with flight planning information on an iPad).

NOTE: A "flyaway" (an interruption or loss of the control link, or when the pilot is unable to effect control of the aircraft and, as a result, the unmanned aircraft is not operating in a predictable or planned manner) may be considered a flight control malfunction requiring immediate NTSB notification in accordance with 49 CFR part 830, § 830.5.

NOTE: Refer to Volume 16, Chapter 4, Sections 6 and 7; part 107, § 107.9; the current edition of Advisory Circular (AC) 107-2, Small Unmanned Aircraft Systems (sUAS); 49 CFR part 830; and the NTSB's Advisory to Operators of Civil Unmanned Aircraft Systems in the United States (http://www.ntsb.gov/investigations/process/Documents/NTSB-Advisory-Drones.pdf) for additional information regarding accident reporting for both civil and public operations.

16-5-2-17 INSPECTION AREAS. There are five general inspection areas that can be observed and evaluated during site visits. These inspection areas are as follows:

- Authorization and Authorizing Documents (e.g., exemptions, CoAs, and CoWs);
- Aircraft and Equipment;
- Crewmember;
- Area of Operation; and
- Mission and Operation.

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A. Authorization. UAS operations are authorized by the FAA with different processes and different authorizing documents depending on civil or public aircraft status of the UAS. A UAS may be operated as a civil or public aircraft, but cannot be operated as both at the same time.

1) Civil UAS operators may operate a UAS as a model aircraft under 14 CFR part 101, a non-model aircraft under part 107, an aircraft issued a Special Airworthiness Certificate, or under the provisions of Section 333 of the FMRA. Section 333 allows the Secretary of Transportation to determine if certain UAS can be operated safely in the National Airspace System (NAS), and allows the authorization of those operations.

2) Public unmanned aircraft and airmen are the responsibility of the public entity that operates the UAS in support of its operations. Public aircraft entities may choose to operate as civil aircraft under part 107, as Section 333 exemption aircraft, or as certified aircraft, but cannot operate as both public and civil aircraft at the same time, nor under part 107 and a Section 333 exemption at the same time.

B. Aircraft and Equipment.

1) Areas of Inspection. This inspection area refers to the overall condition of the operator's equipment including the UAS, its associated equipment, and conditions and limitations. The ASI should examine the identification placard, operating limitations, operations manual, GCS, launch and recovery equipment, sensor package, and communication equipment.

2) Aircraft Registration. With the implementation of 14 CFR part 48, all UAS weighing 0.55 lbs and greater must be registered. Part 48 is only available for registration of UAS weighing 0.55 lbs to 55 lbs. Recreational (model) aircraft owners receive one registration number and will use that same number on all of their model aircraft.

a) Non-recreational aircraft in this weight class must be registered individually with each aircraft having a distinct registration "N" number.

b) The registration number for both recreational and non-recreational aircraft must be affixed to the aircraft, but may be inside a compartment that is accessible without the use of special tools.

c) Title 14 CFR part 47 registration is required for all UAS weighing 55 lbs or more, including recreational (model) aircraft.

d) Part 47 and part 48 registration certificates must be available for inspection during unmanned aircraft operations.

C. Crewmember. This area includes evaluations of the applicable documents (airmen certificates, driver's license, etc.) of the remote PIC, visual observer(s) (VO), and chase aircraft pilots, as applicable. A government-issued photo identification card is required for civil non-model operations. It is not a requirement for model aircraft operations.

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1) PIC or Remote Pilot. The applicable regulation, grant of exemption, special provisions in a CoW, or CoA specifies requirements for pilot certification. Non-model civil remote pilots are required to meet the currency requirements specified in 14 CFR part 61, § 61.56 or the recency requirements of § 107.65, as applicable. Flight reviews may be a requirement for public aircraft PICs, as specified in their CoA. Model aircraft operators are not required to have flight reviews.

2) Chase Aircraft and Pilot.

a) The chase aircraft, if authorized and utilized, will always have at least two occupants: the chase aircraft PIC and the UAS observer. The PIC of the chase aircraft cannot serve as the UAS observer or UAS PIC while piloting the chase aircraft.

b) The chase aircraft PIC must meet all the regulatory requirements to serve as the PIC of the manned aircraft being operated. The chase aircraft PIC is required to have the medical certificate required by the operation. If the chase aircraft is operated for compensation or hire, a commercial pilot certificate and second-class medical is required. If the chase aircraft is operated as a public aircraft, the public entity is responsible for certification of the pilot and aircraft.

3) VO.

a) Since unmanned aircraft pilots cannot "see" from the aircraft, for the purpose of 14 CFR part 91, § 91.113(b) or § 107.33, a VO may be a required flightcrew member for certain operations (refer to the regulation, Section 333 exemption, or CoA for applicability). Most unmanned aircraft must be flown within Visual Line of Sight (VLOS) of the PIC/remote pilot and VO. (Note: Waivers and exemptions are available for this requirement.) The VO must be able to communicate to the pilot any information required to remain clear of conflicting traffic, terrain, and obstructions, proper cloud clearances, and provide navigation awareness. The VO should be familiar with air traffic and radio communications, and appropriate sections of the Airman's Information Manual (AIM), in accordance with the conditions and limitations specified in the grant of exemption, part 107 CoW, airspace authorization, etc. Unless specified in the authorizations documentation, no medical requirement has been established for VOs.

b) Some grants of exemption permit training for compensation, and part 107 permits a noncertificated person to manipulate the unmanned aircraft flight controls under the direct supervision of an FAA-certificated and qualified PIC/remote pilot. In both instances, the conditions and limitations of the authorization documentation may specify the requirement for a VO, dedicated only to VO responsibilities.

D. Area of Operation. During site visits (particularly on initial visits) the ASI should study the placement of various components used by the operator to support the mission. The ASI should evaluate the flying area for safety, obstructions, and the presence of nonparticipating personnel.

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E. Types of Operations.

1) Public Aircraft Operations. Public aircraft operations are operated under the operational control of a public entity.

2) Civil Aircraft Operations. Civil aircraft operations include model aircraft, part 107, Section 333 exemptions, and certified UAS.

3) Model—Recreational Only. Model—recreational only includes education at an accredited institution.

4) Part 107. Part 107 operations are the furtherance of a business, nonprofit, or commercial within the limitations of part 107.

5) Section 333 Exemptions. Section 333 exemptions are the furtherance of a business, nonprofit, or commercial within the limitations of the exemption.

NOTE: The primary purpose of the Section 333 exemption process is to exempt the aircraft from certification standards and allow small Unmanned Aircraft System (sUAS) commercial aerial work (non-air carrier) operations until part 107 could be implemented. Some Section 333 exemptions may still exist for special purposes that may not be applicable under part 107.

NOTE: Closed-set filmmakers are required to present a Plan of Activities (POA) to the nearest FSDO. The inspector should study the "Plan" for safety issues. If there are safety concerns, the FSDO Inspector should inform the filmmaker of the concerns. It is important the ASI *not* accept or approve the POA. While not required, the ASI is encouraged to acknowledge receipt of the POA.

F. Mission and Operation. This inspection area is for the evaluation of crewmember(s) preparation for the mission, the quality of the mission, and compliance with pre- and post-flight procedures. Determine compliance with checklists, preflight inspection, filing of Notice(s) to Airmen (NOTAM), and programming of equipment for emergency and abnormal procedures. It is important to observe the positioning of crewmembers and spectators, procedures used, "sterile cockpit concept," and that there is no non-mission related use of electronic devices that may cause interference when the UAS is in operation. The ASI should evaluate operations during preflight, mission/flight operation, and post-flight inspection. The aircraft preflight inspection is a critical part of the UAS airworthiness process.

G. Authorization. Authorization for mission area, charted airspace, approach, departure, and en route corridors is often mitigated via "geo-fencing" where specific coordinates are entered into the control station. Some UAS include autopilots that can remain within the electronically defined perimeter, while others will not, and rely on vigilance of the PIC. Adherence to CoA boundaries, altitudes, and methodology is very important. Determine the security of the area of operation, pilot station, observer station, and spectator area with particular attention paid to crowd control. (Note: This may be included in the PIC's preflight risk assessment.) Determine air traffic control (ATC) communication procedures, equipment operations check, and backup equipment/power.

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NOTE: Checking of receiver autonomous integrity monitoring (RAIM) for Global Positioning System (GPS) operation (http://sapt.faa.gov/default.php) is recommended, but not required, when planning UAS flight operations in the NAS. A RAIM check may be more relevant when geo-fencing is used and operations are conducted near lateral boundaries specified in the conditions and limitations and CoA.

16-5-2-19 GENERAL INSPECTION PRACTICES AND PROCEDURES. Site visits may be conducted any time a UAS is operated in the NAS. The following areas of conduct should be observed by inspectors during site visit activities:

- Inspectors should not interrupt crew or personnel when they are performing a particular phase of their duties;
- When site visit activities require inspectors to interact directly with the crew or personnel, the activities should be timed to be accomplished when the crew or personnel are waiting to begin another phase of their duties, or after they have completed one phase of their duties and before they begin another phase;
- Inspection activities must be timed so that they do not delay, or interfere with, nor adversely impede UAS servicing, or inspection; and
- Inspectors should use the UAS Operations Site Visit Job Aid (see Figure 16-5-2A below) when conducting site visits. This job aid contains a list of items ("reminders") that should be observed and evaluated by the ASI during the site visit. There may be items evaluated during a site visit that are not listed on the job aid. The job aid can also be used to make notes during the site visit.

NOTE: Site visits provide the inspector with an excellent opportunity to establish a collaborative working relationship with the UAS operator. Many UAS operators have never had the opportunity to interact with FAA inspectors. An effective outreach program will set the stage for continuous improvement in flight operations and establish a positive working relationship that encourages event reporting without fear of reprisal.

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Figure 16-5-2A. UAS Operations Site Visit Job Aid

PROCEDURES.

A. PTRS. Open the PTRS file (1623/3631/5631).

B. Prepare for the Inspection. This could include:

- Coordinating with the Regional UAS Specialist and ATC facility with control over the operating area.
- Coordinating with the operator personnel or crew, select the operations to be inspected, and determine the type of equipment and time needed.
- Determining recent problem areas that were identified for that type of UAS and operation, if any.

C. Interview the Flightcrew. Introduce yourself and describe the purpose and scope of the site visit.

D. Examine the UAS Aircraft Records (as applicable).

1) Ensure that all open discrepancies from the previous flight are resolved in accordance with the operator's procedures and conditions and limitations in the grant of exemption.

2) Review any associated maintenance documents to determine if repetitive maintenance problems exist, which might indicate a trend.

E. Examine the Maintenance Log. Ensure that the operator has recorded discrepancies noted during the site visit in accordance with the conditions and limitations in the grant of exemption. If time is available, monitor the operator's corrective actions. Be aware the maintenance "logbook" may not be a formal log as in manned aviation. The operator is required to document maintenance and test flights.

F. Debrief the Operator, Personnel, or Flightcrew. Inform the flightcrew or appropriate personnel that the site visit has been completed. Discuss any discrepancies brought to the operator's attention during the site visit and any "best practices" observed by the inspector.

G. Analyze Findings. Analyze each finding to determine if the discrepancies are the result of improper training, maintenance, and/or missing or inadequate operational procedures.

H. PTRS Report. See Volume 16, Chapter 1, Section 4, subparagraph 16-1-4-5 for more information about completing a PTRS for UAS activities.

FUTURE ACTIVITIES. Based on the site visit findings, determine if closer surveillance, outreach, enforcement, other job tasks, and/or additional coordination are required to regain compliance.

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Figure 16-5-2B. UAS Operations Site Visit Job Aid Checklist

Date: ___/___/___ Launch: ___:___ AM/PM Landing: ___:___ AM/PM

Operator: _____

Type of Operation:

14 CFR Part 107 ☐ Certificated Aircraft ☐ Public Aircraft ☐ Section 333 ☐ Model Aircraft ☐

As Applicable: COA Number, Exemption Number, Type Certificate Number: _____

Date: _____

Mission: _____

Regulatory Waivers/Exemptions/Airspace Authorizations:

_____

UAS Type: _____ Manufacturer: _____

Registration Number: _____ Serial Number: _____

Ground Control Station Type: _____ Serial Number: _____

Location: _____ Lat: _____ Long: _____

Weather: Ceiling _____Visibility _____Baro: ____.____ inches or _____mbar

Temperature: _____deg. F. Due Point: _____deg. F. Relative Humidity: _____%

Precipitation: Y/N Day/Night Overland/Overwater/Both VLOS/BVLOS

AIRCRAFT/EQUIPMENT	Compliant/Action Required:	Comments:
Airworthiness		No airworthiness certification is required for operations under Section 333, 14 CFR part 107, or for model aircraft. Airworthiness Statement is required for public aircraft operations.
UAS Registration & Marking		See section on Aircraft Registration above.
Ground Control Station		

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See below for crewmember requirements:	
Name:	
Position:	
Gov. ID:	
Medical (Class):	
Pilot Certificate:	
Document of Training:	
Additional crewmember information:	
Name:	
Position:	
Gov. ID:	
Medical (Class):	
Pilot Certificate:	
Document of Training:	
Additional crewmember information:	
Name:	
Position:	
Gov. ID:	
Medical (Class):	
Pilot Certificate:	
Document of Training:	

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Additional crewmember information:	
Name:	
Position:	
Gov. ID:	
Medical (Class):	
Pilot Certificate:	
Document of Training:	

AREA OF OPERATION	**Compliant/Action Required:**	**Comments:**
Exemption		No airworthiness certification is required for operations under Section 333, part 107, or for model aircraft. Airworthiness Statement is required for public aircraft operations.
CoA/CoW/Airspace Authorization/Operating Documents(s)		See section on Aircraft Registration above.
§ 91.113 (Right of Way)		
§ 91.119 (Minimum Safe Altitudes)		
Radio Frequencies Used:		
Mission Area/Airspace (Charts and maps)		
Flying Area Organization/ Corridors: • Approach • Departure • Other		
Pilot/Observers Station:		
Operations Check:		
Secure Area of Operation/ Crowd/Spectator Control:		
Backup Equipment:		

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MISSION/OPERATION	Compliant/Action Required:	Comments:
NOTAM Filed:		
Mode C Veil Notification Filed:		
Mission Planning/Briefing:		
Risk/Hazard Analysis:		
Use of Checklist (as applicable):		
Preflight Inspection:		
RAIM Check for GPS Operation (if used):		
Programing of Equipment: • Normal Mission • Emergency/Abnormal		
Sterile "Cockpit" Concept:		
Flight Operation:		
Post-Flight Inspection:		

Additional comments:

Inspector: _____ Office: _____ Date: ___/___/___

16-5-2-21 RELATED REGULATIONS AND PUBLICATIONS.

A. Title 14 CFR:

- Part 1, Definitions and Abbreviations.
- Part 47, Aircraft Registration.
- Part 48, Registration and Marking Requirements for Small Unmanned Aircraft.
- Part 61, Certification: Pilots, Flight Instructors, and Ground Instructors.
- Part 91, General Operating and Flight Rules.
- Part 107, Small Unmanned Aircraft Systems.

B. Title 49 CFR:

- Chapter I, Subchapter C, Hazardous Materials Regulations.
- Chapter VIII, Part 830, Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records.
- Chapter XII, Part 1520, § 1520.5, Sensitive Security Information.

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C. Related Publications (current editions).

1) ACs:

- AC 91-57, Model Aircraft Operating Standards.
- AC 107-2, Small Unmanned Aircraft Systems (sUAS).
- * AC 120-51, Crew Resource Management Training.
- * AC 120-71, Standard Operating Procedures for Flight Deck Crewmembers.
- * AC 120-92, Safety Management Systems for Aviation Service Providers.

2) FAA Orders:

- * Order JO 1000.37, Air Traffic Organization Safety Management System.
- Order JO 7110.65, Air Traffic Control.
- Order JO 7210.3, Facility Operation and Administration.
- Order JO 7400.8, Special Use Airspace.
- Order JO 7610.4, Special Operations.
- * Order 8000.369, Safety Management System.
- Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting.
- Order 8900.1, Flight Standards Information Management System (FSIMS).

3) FAA Notices. Notice JO 7210.891, Unmanned Aircraft Operations in the National Airspace System (NAS), or current notice.

D. Other Documents:

- FAA-S-ACS-10, Remote Pilot–Small Unmanned Aircraft Systems Airman Certification Standards: http://www.faa.gov/training_testing/testing/acs/media/uas_acs.pdf.
- FAA-G-8082-22, Remote Pilot–Small Unmanned Aircraft Systems Study Guide: http://www.faa.gov/uas/getting_started/fly_for_work_business/becoming_a_pilot.
- FAA Safety Team (FAASTeam) Training Course, ALC-451, Part 107 Small Unmanned Aircraft Systems (sUAS): https://www.FAAsafety.gov.
- Title 47 of the Code of Federal Regulations (47 CFR) Part 300, National Telecommunications and Information Administration (NTIA) Manual of Regulations and Procedures for Federal Radio Frequency Management, Chapter 7.11, Use of Frequencies by Certain Experimental Stations.
- Title 49 of the United States Code (49 U.S.C.) § 40102(a)(41), Definitions.
- * Convention on International Civil Aviation ("Chicago Convention"), December 7, 1944, 61 Stat. 1180, 15 U.N.T.S. 295.

NOTE: Items marked with an asterisk (*) may only be appropriate as a reference or guidance to operators conducting flight operations under a grant of exemption. Inspectors should exercise caution to ensure document applicability, and not apply regulatory requirements expected in traditional commercial flight

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operations. Though operators may be exempt from special airworthiness criteria, commercial pilot training standards, typical training program criteria, etc., inspectors should expect operators, flightcrew, maintenance staff and VOs to be knowledgeable of, and adhere to, all relevant operating requirements (e.g., operating documents, grants of exemption, LOAs, Memorandums of Understanding (MOU), and CoA(s) issued by the FAA).

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VOLUME 17 SAFETY MANAGEMENT SYSTEM

CHAPTER 4 SAFETY MANAGEMENT SYSTEM VOLUNTARY PROGRAM

Section 1 General

17-4-1-1 PURPOSE OF THIS CHAPTER. This chapter:

- Provides guidance for Federal Aviation Administration (FAA) Flight Standards Service (AFS) personnel to evaluate Safety Management Systems (SMS) of certificate holders participating in the AFS Safety Management System Voluntary Program (SMSVP).
- Assists certificate holders, participating in the Safety Management System Pilot Project (SMSPP), transitioning to the SMSVP.

NOTE: U.S. and international SMS initiatives and implementation efforts underscore the importance of standardizing SMS applications, where possible.[31]

17-4-1-3 AUDIENCE. This chapter serves as guidance to assist AFS headquarters (HQ), Regional Office (RO), and field office personnel in SMS evaluation. This chapter is expected to be used by certificate-holding offices (certificate management office (CMO) or certificate-holding district office (CHDO)) whose certificate holders have requested FAA recognition of their SMS. A secondary audience is certificate holders who want to implement an SMS accepted by the FAA.

NOTE: All SMSPP participants are automatically entered into the SMSVP and may remain in the SMSVP until required by regulation to develop an SMS (see Volume 17, Chapter 4, Section 3, Figures 17-4-3S, Transitioning from SMS Pilot Project to the SMS Voluntary Program, and 17-4-3T, Bridging Document Differences Between AC 120-92A and the SMSVP Standard).

NOTE: For the purpose of this chapter, "CMT" refers to a Certificate Management Team, a CMO/certificate management unit (CMU), or a Flight Standards District Office (FSDO)/CHDO with certificate oversight responsibilities.

17-4-1-5 PURPOSE OF THE SMS VOLUNTARY PROGRAM (SMSVP). The SMSVP is how the FAA conforms to the International Civil Aviation Organization (ICAO) definition of an SMS "acceptable to the State."[32] An SMS required by regulation or developed within this voluntary program corresponds to ICAO SMS requirements and will be accepted by other ICAO Member States.

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[31] The SMSVP Standard is how participants' SMS development is measured. While similar to Title 14 of the Code of Federal Regulations (14 CFR) part 5 ("Safety Management Systems" for part 121 certificate holders), the SMSVP Standard, not part 5, is how SMSVP conformance is determined. SMS is an international initiative, so wherever developed, a properly constituted SMS includes safety policy, Safety Risk Management (SRM), Safety Assurance (SA), and safety promotion.

[32] International Civil Aviation Organization (ICAO), Annex 19, Safety Management, Chapter 4.

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NOTE: Certificate holders in the SMSVP must meet all program requirements to achieve and maintain FAA recognition.

NOTE: Questions concerning this chapter should be directed to the AFS Safety Management System Program Office (SMSPO) National Coordinator at 703-661-0565, or 9-NATL-SMS-ProgramOffice@faa.gov.

17-4-1-7 SMSVP PROCESS OVERVIEW. SMSVP implementation and continual improvement of a fully implemented SMS uses a phased approach. The following process phases are defined in Volume 17, Chapter 4, Section 2:

- Preparation Phase;
- CMT Validation Phase;
- Documentation Validation Phase;
- Design Demonstration Phase;
- Administrative Process Phase; and
- Continued Operational Safety (COS).

17-4-1-9 SMS PROGRAM OFFICE (SMSPO) RESPONSIBILITY AND AUTHORITY. The SMSPO is part of the Flight Standards National Field Office (AFS-900). FAA Order FS 1100.1, Flight Standards Service Organizational Handbook, assigns the SMSPO as the office of primary responsibility and focal point for AFS SMS initiatives.

17-4-1-11 SMSVP GENERAL INFORMATION. A certificate holder may develop and implement an SMS in any manner it deems appropriate. However, when a certificate holder requests FAA recognition of its SMS, an Implementation Plan must be submitted to its CMT for validation against the SMSVP Standard (see Volume 17, Chapter 4, Section 3, Figure 17-4-3A, Safety Management System Voluntary Program Standard).

A. Monitoring Certificate Holders' SMSVP Standard Conformance. This chapter addresses SMS implementation within the SMSVP. A certificate holder will continue following existing regulations and certificate requirements. Once the FAA recognizes a certificate holder's SMS, its CHDO will monitor ongoing conformity with the SMSVP Standard. Failure to maintain SMSVP standards may result in withdrawal of the certificate holder's "SMSVP Active Conformance" status.

B. SMS Implementation Progress. Once started, the certificate holder is expected to make steady progress towards full SMS implementation and continual improvement. The following categories denote the progress expected:

1) SMSVP Active Applicant. The certificate holder and CMT have committed to sufficiently support the SMS implementation and validation processes.

2) SMSVP Active Participant. The certificate holder officially begins and maintains its implementation efforts.

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3) SMSVP Active Conformance. The CMT and SMSPO acknowledge full implementation of the certificate holder's SMS. The certificate holder is expected to use and continually improve its safety management processes.

NOTE: When a certificate holder fails to meet SMSVP standards, it becomes an SMSVP Non-Active Participant.

NOTE: The SMSPO has sole authority to authorize or withdraw recognition of a certificate holder's SMS. The SMSPO's primary objective is to assist CMTs in validating SMS development and help certificate holders maintain their "active conformance" status. The SMSPO will maintain an SMSVP Status Roster of all participants.

C. Recognition of Full Implementation. After SMS full implementation is recognized, the certificate holder is expected to use and continually improve its safety management processes. The CMT is expected to perform its certificate oversight duties where SMS is one of a number of performance measures determining COS. The SMSPO periodically verifies the certificate holder's conformance to the SMSVP Standard by review of CMT oversight data.

D. SMSVP Withdrawal. SMSVP participants are free to withdraw from the SMSVP at any time. If the certificate holder withdraws after SMSVP recognition, it must notify its CMT and the SMSPO and their status will be changed to "voluntary withdrawal" and the effective date recorded in the Status Roster.

17-4-1-13 SMS DUTIES AND RESPONSIBILITIES.

A. Certificate Management Team (CMT). The CMT is responsible for validating the certificate holder's management system applications during both the implementation process and after full implementation. Office management is responsible for allocating the resources to accomplish this requirement.

NOTE: It is strongly recommended that a CMT, committed to supporting its certificate holder's SMSVP participation, identify a point of contact (POC) to oversee CMT validation activities and communicate with the SMSPO.

B. Certificate Holder. The FAA authorizes a certificate holder to provide an aviation service or product. In SMS development, a certificate holder designates an accountable executive who has final authority over operations authorized under its certificate and is ultimately responsible for the company's safety performance. He or she signs and submits the SMS Implementation Plan on behalf of his or her company. The accountable executive's signature is a commitment to provide adequate resources for SMS development, implement SMS in all relevant areas of the organization, and ensure ongoing conformance to the SMSVP Standard.

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C. SMS Program Office (SMSPO). In addition to the duties detailed in paragraph 17-4-1-9, the SMSPO may be contacted for guidance and policy interpretation through the CMT. SMSPO support is readily available upon request for all preapplication, validation, and COS activities.

NOTE: To request SMSPO support services, please contact the National Coordinator at:

Safety Management System Program Office
AFS-900
45005 Aviation Drive, Suite 131
Dulles, VA 20166
Phone: 703-661-0565
Email: 9-NATL-SMS-ProgramOffice@faa.gov.

D. SMS Regional Point of Contact (RPOC). The RPOC is the primary "local" resource for SMS implementation and support. RPOCs are alerted to requests for SMSPO onsite assistance and may participate in those activities. RPOCs may be asked to address and help resolve SMS related conflicts. Additionally, RPOCs are information resources on SMS trends, development, and news throughout their region.[33] While the SMSPO is the final authority on application of the SMSVP Standard, local and regional resolution of SMS related issues is encouraged.

E. Senior Technical Specialist (STS). The STS for Safety Management is the FAA's senior SMS subject matter expert (SME) and the official Aviation Safety (AVS) Organization SMS advisor. The STS resides in AFS-900. The STS consults on all internal and external SMS development, technical issues, rulemaking, and policy formation. In addition to the SMSPO, the STS works closely with industry, government agencies, advocacy groups, and international organizations to advance SMS and its application within the National Airspace System (NAS).

17-4-1-15 APPROVING/ACCEPTING MANUALS. Under the SMSVP, inclusion of SMS employee guidance in an aviation certificate holder's manual system has no impact on CMT approval or acceptance of required manuals under existing inspector guidance.

A. Example of a Disclaimer. The following disclaimer may be used: "[Approval/Acceptance] of this [manual/document/procedure] does not constitute approval or acceptance of guidance pertaining to the certificate holder's SMS."

B. Purpose of the Disclaimer. The disclaimer provides the CHDO a means of identifying inclusion of a certificate holder's safety management policy, processes, and procedures within its manual system, without impact to the CMT approval/acceptance process. The disclaimer further clarifies that CMT approval/acceptance of a manual does not constitute FAA recognition of the certificate holder's SMS processes under the SMSVP.

[33] RPOCs may also promote SMS development by contributing to news articles for online publications. (For example, see "What's Happening With SMS" (Keeping Flight Standards and Industry Informed!), http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs900/sms/media/sms_newsletter.pdf.)

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17-4-1-17 SMS REFERENCES. This paragraph references additional resources available to CMTs during review and validation of a certificate holder's SMSVP submissions.

A. Regulatory Requirement. Title 14 CFR Part 5, Safety Management Systems for Domestic, Flag, and Supplemental Operations Certificate Holders, Final Rule (80 FR 1308, January 8, 2015).

B. Related Publications. Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

C. Service Provider SMS Implementation Tools. Volume 17, Chapter 4, Section 3, Figure 17-4-3U, Definitions.

17-4-1-19 through 17-4-1-33 RESERVED.

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VOLUME 17 SAFETY MANAGEMENT SYSTEM

CHAPTER 4 SAFETY MANAGEMENT SYSTEM VOLUNTARY PROGRAM

Section 2 SMS Voluntary Program Validation Process

17-4-2-1 PREPARATION PHASE.

A. Safety Management System Voluntary Program (SMSVP) Acceptance. The certificate holder or a Certificate Management Team (CMT) will contact the Safety Management System Program Office (SMSPO) by email to begin the application process. The SMSPO will ensure all relevant parties are informed of the certificate holder's requested entry into the SMSVP.

B. Certificate Holder and CMT Commitment. In order to continue the application process, the certificate holder and CMT must commit to providing sufficient resources to ensure successful Safety Management System (SMS) implementation. The SMSPO will provide both information describing the SMSVP validation process and respective roles, responsibilities, and expectations.

1) Once the certificate holder and CMT completely review SMSVP information, they must commit to supporting the SMS implementation process. Without a firm commitment from both parties, SMSPO communications will be limited to promotional materials. An email or letter from CMT management and the certificate holder's executive management to the SMSPO is considered a documented commitment.

Email: 9-NATL-SMS-ProgramOffice@faa.gov
Letter: Attn: SMS Program Office
AFS-900 National Field Office
45005 Aviation Drive, Suite 131
Dulles, VA 20166

2) The SMSPO will designate the certificate holder as an "SMSVP Active Applicant" once it receives the respective CMT and certificate holder commitments. This permits the allocation of resources to support activities related to SMS implementation.

C. SMSVP Initial Workshop. The SMSPO will identify an SMS Implementation Support Team (IST) to conduct an initial workshop with the certificate holder and CMT. Before the workshop, the IST will provide copies of all applicable documents and information expected to be referenced at the workshop.

D. SMSVP Initial Workshop Agenda. The IST will conduct a multiday workshop. Part of the workshop is just for the CMT to address "FAA Only" issues. The remaining workshop time is for the certificate holder and CMT to address the following items with both the CMT and the certificate holder:

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1) Organizational concepts and considerations;

2) Description of the SMSVP Standard;

3) Description of service provider SMS tools;

4) The SMSVP implementation and validation processes;

5) SMS "Active Participant" acknowledgement; and

6) Continued Operational Safety (COS) oversight expectations.

E. SMS Implementation Plan Design. The certificate holder may develop its SMS Implementation Plan in a form, manner, and medium that meets its needs and is agreeable to its CMT.

1) The certificate holder's Implementation Plan is a "roadmap" describing actions needed to conform to the SMSVP Standard. The Implementation Plan should detail a realistic timeline. The certificate holder should examine its organizational structure and manuals to identify individuals responsible for process designs and who have authority and technical expertise to apply those designs.

2) It is incumbent upon the certificate holder to identify individuals responsible for developing, implementing, and maintaining SMS processes within their respective areas of responsibility. Process manager responsibilities shall include:

- Hazard identification, safety risk assessment, and risk acceptance;
- Evaluating the effectiveness of safety risk controls;
- Promoting safety; and
- Submitting reports to the accountable executive on SMS processes functioning according to their design.

3) Implementation Plan outlines should include:

a) A listing of the relevant sections of the SMSVP Standard and associated reference sources;

b) A brief narrative describing where processes conform to the SMSVP Standard, or what actions the certificate holder will take to comply;

c) Identification of specific employees that will be responsible for implementing required actions;

d) Estimated target dates that each expectation will be ready for design validation; and

e) Estimated target dates that each expectation will be ready for design demonstration.

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4) The certificate holder's Implementation Plan is the result of a thorough, system-wide gap analysis. A gap analysis compares existing processes, procedures, programs, and activities to the SMSVP Standard. Completing a gap analysis allows the certificate holder to determine what existing programs, processes, and practices comply with the SMSVP Standard and identify those that do not.

F. Implementation Plan Submission. Once the certificate holder has developed its Implementation Plan, it will be submitted to the certificate-holding district office (CHDO) for review. The time between the initial SMS workshop and the certificate holder's Implementation Plan submission can take as long as a year, but may be completed in less time. Once the plan is agreeable to the CMT, and the SMSPO has completed its quality review, the participants are ready to start the Validation Phase.

17-4-2-3 CMT VALIDATION PHASE.

A. CMT Receipt of Implementation Plan. The certificate holder will submit its SMS Implementation Plan to the CMT following normal CHDO protocols.

B. CMT Implementation Plan Review. The CMT will perform a review of the certificate holder's Implementation Plan using these general guidelines:

1) The CMT concurs the Implementation Plan has properly identified the primary process areas/departments/sub-departments that constitute the organization's system.

2) The CMT concurs that the Implementation Plan addresses all sections of, and is in conformance with, the SMSVP Standard.

3) The CMT concurs that the organization has adequately identified where their documentation shows conformance to the SMSVP Standard.

4) The CMT, based on its overall knowledge of the certificate holder, does not find any processes that appear too simplistic or too complex for the size, scope, and complexity of the organization.

5) The CMT can identify the certificate holder's process points of contact (POC) to coordinate its validation activities.

6) The CMT can develop a viable validation plan from the certificate holder's implementation target dates (earliest dates that process areas will be ready for CMT design validation or design demonstration).

NOTE: The target dates on the certificate holder's Implementation Plan are not necessarily the dates on which the CMT will perform validation work, but helps the CMT forecast dates for validation activities.

C. Acceptable Certificate Holder Implementation Plans. If an Implementation Plan is agreeable to the CMT, it should start CMT validation project planning (see subparagraph 17-4-2-3E).

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D. Unacceptable Certificate Holder Implementation Plans.

1) If the CMT finds the Implementation Plan unacceptable, the CMT will return it to the certificate holder following local CMT office policy.

a) The CMT, in writing, must notify the certificate holder of the unacceptable submission(s) and a written explanation of the deficiencies requiring correction before it will conduct further reviews.

b) The CMT may request a meeting with the certificate holder's implementation project leaders to discuss identified deficiencies, if required.

c) After the CMT evaluates the certificate holder corrections, if acceptable, it will resume its review as required in subparagraph 17-4-2-3B.

2) Disagreements over Implementation Plan suitability between the CMT and certificate holder may be referred to the Regional Point of Contact (RPOC) for clarification and assistance. However, the SMSPO is the final authority on the SMSVP Standard and is available to address technical questions regarding policy and best practices.

E. CMT Validation Project Plan (VPP). The objective of a good validation plan is forecasting the resources needed to perform appropriate validation activities on the certificate holder's safety management processes. To those ends, during Implementation Plan review, the CMT will consider how to manage its validation work.

1) VPP development is based on the certificate holder's Implementation Plan submission. The submitted plan guides the CMT to identify its corresponding subject matter resources to validate specific areas of the certificate holder's management system. Once appropriate CMT resources are identified, it can draft its VPP. The CMT manager may adjust office resources to address VPP requirements.

2) To develop a viable VPP, the CMT must understand the purpose and use of the design validation and design demonstration job aids provided in Volume 17, Chapter 4, Section 3. Validation activities must be accomplished in sufficient detail to ensure conformance with the SMSVP Standard. It is recommended the CMT contact the SMSPO for assistance in how to use the supplied design validation and design demonstration job aids. As scheduled validations should not detract from the CMT's regular certificate management responsibilities, the SMSPO can assist the CMT in determining effective and efficient ways to manage its validation work.

F. VPP Considerations.

1) The CMT and certificate holder must agree on the VPP schedule of events (SOE). The CMT should design its validation activities to allow for "assessment-correction-reassessment" as planned CMT design validation and design demonstration validation dates may become unreliable if the proposed Implementation Plan timelines are not being met. The CMT and certificate holder POCs should collaborate throughout the validation process and revise the VPP SOE as necessary.

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a) Depending on the proposed validation activity there may not be a need to conduct independent validations for processes uniformly applied throughout the organization. These processes may require only a one-time sampling to validate an entire system-wide application.

b) Some validation work can be accomplished remotely while others require onsite, and sometimes, multiple site visits.

c) The SMSVP phased approach requires that, in collaboration with the SMSPO (see subparagraph 17-4-2-7E), two design demonstration activities be scheduled at the very end of the CMT validation process:

- The Management Review Design Demonstration; and
- The Corporate Safety Risk Management (SRM) Design Demonstration.

2) Once the VPP is drafted, a validation planning meeting is scheduled with the CMT and certificate holder to review the plan.

G. CMT and Certificate Holder Validation Planning Meeting. The CMT SMS POC will organize an SMS validation planning meeting with the certificate holder to agree on the proposed VPP timelines. Appropriate CMT and certificate holder implementation teams must attend to agree or revise the validation plan schedule.

1) The CMT POC will present its SMS VPP to the certificate holder and discuss planned activities. The certificate holder and CMT agreement of the SMS VPP represents mutual acceptance of the plan's timeline for completion of CMT validation activities. The certificate holder should also commit to aggressively work toward meeting the proposed target completion dates (i.e., design review readiness dates and design demonstration readiness dates) defined in their Implementation Plan submission.

2) The certificate holder and CMT should discuss how Implementation Plan changes might affect VPP activities.

3) The CMT will notify the certificate holder of the design validation and design demonstration job aids being used to validate its SMS, and how they will be used. The CMT will remind the certificate holder that it must provide evidence of its own internal assessments and corrections, if applicable, before the CMT validates those processes.

4) During the validation planning meeting, CMT and certificate holder concerns are addressed. Both will agree that all the planning requirements are complete and the certificate holder is ready to be acknowledged as an "Active Participant" by the SMSPO. The CMT will forward the following to the SMSPO:

- Its acknowledgement recommendation;
- The certificate holder's SMS Implementation Plan; and
- The CMT's VPP.

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NOTE: The CMT may forward its acknowledgement recommendation and attachments in an email to the SMSPO (9-NATL-SMS-ProgramOffice@faa.gov).

H. SMSPO VPP Review.

1) Once the SMSPO has received the certificate holder's Implementation Plan, the CMT's VPP, and CMT acknowledgement recommendation, the SMSPO performs a quality review of the documents. The SMSPO will contact the CMT POC if there are any questions or open issues from its review. Any subsequent corrections of identified deficiencies will be coordinated with the impacted parties, as applicable.

2) When the SMSPO determines the certificate holder has a complete Implementation Plan that meets the SMSVP Standard, it will issue a letter acknowledging the certificate holder as an "SMSVP Active Participant" and update the SMSVP Status Roster.

I. Program Tracking and Reporting Subsystem (PTRS) Procedures.

1) The CMT will open PTRS records to document completion of the following preparation activities:

a) Implementation Plan review,

b) Validation Plan completion, and

c) CMT recommendation of acknowledgment to the SMSPO.

2) These milestones would be recorded in the comments section of the PTRS record. The CMT may add additional preparation activities using this same convention.

a) Enter activity number 1045, 3045, or 5045, as appropriate.

b) Enter "SMSPREP" (SMS Preparation) in the "National Use" box.

c) In the comments section, record any specific activity (e.g., Implementation Plan review, validation planning meeting activity, and return of Implementation Plan).

17-4-2-5 DOCUMENTATION VALIDATION PHASE.

A. Evaluating a Certificate Holder's SMS Design. This paragraph provides guidance for determining if a certificate holder has an adequately designed SMS that includes required safety management activities and processes in their organizational system.

B. Recording Design Assessments (DA). A CMT must have documented evidence that the planned activities from the VPP have been accomplished.

C. The SMSVP Design Job Aids. The design job aids may be used to evaluate the certificate holder's documentation describing its SMS applications. The inspector's formal record of observations and evaluations will be recorded using Custom Data Collection Tools (C DCT), which are available as a National Template in the Safety Assurance System (SAS).

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It is expected that the SAS C DCTs validation records will also support the CMT's VPP. Even though design validations may occur at different times, and on different certificate holder process areas/departments, they cannot be considered complete until there are enough validation records to demonstrate conformance with the SMSVP Standard.

NOTE: It is important that responsibilities and authorities are defined in a certificate holder's process procedure and are preferably assigned to a position not a person (e.g., "The Director of Maintenance (DOM) will send records to the dispatch supervisor"). Passive language is not acceptable (e.g., "The maintenance department would send records to someone in the dispatch department").

NOTE: The CMT will validate, to the extent possible, that the certificate holder's process design conforms to the SMSVP Standard.

D. SMS Design Job Aid Frequency of Use. The number of design job aids to be completed will be identified in the CMT VPP.

- While some job aids may be completed just once, others may be completed multiple times for multiple process areas/departments.
- Certificate holder processes that generally apply across the entire organization require only one design validation.
- Certificate holder processes that apply to specific process areas/departments require DAs for each process area/department (e.g., process area SRM and process area continuous monitoring).
- When the design job aid questions are all answered affirmatively for a process area(s), the CMT can prepare for its design demonstration on that process area(s).

E. Job Aid References. See Volume 17, Chapter 4, Section 3:

- Figure 17-4-3B, SMS Safety Policy Design Validation.
- Figure 17-4-3C, SMS Safety Risk Management Design Validation.
- Figure 17-4-3D, SMS Safety Assurance Design Validation.
- Figure 17-4-3E, SMS Safety Promotion Design Validation.

17-4-2-7 DESIGN DEMONSTRATION PHASE.

A. Evaluating a Certificate Holder's Ability to Execute Its Designed Processes. This paragraph provides guidance for determining whether the certificate holder's process applications have been applied operationally and are working as designed. Once SMS process documentation is validated as conforming to the SMSVP Standard, the CMT is ready to validate certificate holder capability based on its documented processes.

B. Recording Design Demonstration Assessments. A CMT must record the VPP associated work activities so that evidence of it may be verified. The design demonstration job aids are used for this purpose. While certificate holders are not required to use these job aids, they are required to complete their own internal assessments before CMT design demonstration

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assessments begin. Evidence of the certificate holder's internal assessments must be made available to the CMT upon request.

C. The SMSVP Design Demonstration Job Aids.

1) The design demonstration job aids will be used to evaluate the certificate holder's safety management processes. Where actual field demonstration cannot be assessed (e.g., emergency response plans), the CMT is permitted to use simulated processes (sometimes called "tabletop exercises") allowing the CMT to evaluate the certificate holder's capabilities without an actual demonstration.

2) The inspector's formal record of observations and evaluations will be recorded using C DCTs, which are available as a National Template in SAS. Even though design demonstrations may occur at different times and on different certificate holder process areas/departments, they cannot be considered complete until there are enough observations to demonstrate system-wide conformance to the SMSVP Standard.

NOTE: The CMT will validate, to the extent possible, that the certificate holder's process applications actually function in day-to-day operations.

NOTE: For those certificate holders not in SAS, the CMT will make PTRS entries as defined in the job aids.

D. Demonstration Job Aid Frequency of Use. The number of design demonstrations to be completed are identified on the CMT VPP. However, the CMT may add design demonstrations at its discretion. While some demonstration activities may be completed one time, others may be completed multiple times for multiple process areas/departments (e.g., policy work, safety policy, and emergency response plan):

- Processes that generally apply safety policy across its entire organization require only one design demonstration.
- When the certificate holder receives a "satisfactory" evaluation on all of the assigned design demonstrations, the CMT can acknowledge the certificate holder's SMS capability to execute its designed processes.

E. Combined CMT and SMSPO Design Demonstration Validation Activities.

1) The CMT may independently accomplish all design demonstrations with the exception of two that must be completed in collaboration with the SMSPO:

- Accountable Executive Review Process Design Demonstration.
- SMS SRM (Organizational) Design Demonstration.

2) These demonstrations are completed as a "tabletop exercise" with appropriate representatives of the certificate holder, CMT, and SMSPO IST participating. The certificate holder's accountable executive must participate (in person or virtually) for the management review demonstration. The successful output of these two demonstrations are required to close out the CMT's VPP.

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F. Job Aid References. See Volume 17, Chapter 4, Section 3:

- Figure 17-4-3F, SMS Safety Policy Design Demonstration.
- Figure 17-4-3G, SMS Emergency Preparedness/Response Design Demonstration.
- Figure 17-4-3H, SMS SRM (Process/Department Owner) Design Demonstration.
- Figure 17-4-3J, SMS SRM (Organizational) Design Demonstration.
- Figure 17-4-3K, SMS Audit Process Design Demonstration.
- Figure 17-4-3L, SMS Evaluation Process Design Demonstration.
- Figure 17-4-3M, SMS Investigation Process Design Demonstration.
- Figure 17-4-3N, SMS Continuous Improvement Process Design Demonstration.
- Figure 17-4-3P, SMS Accountable Executive Review Design Demonstration.
- Figure 17-4-3Q, SMS Records Retention Process Design Demonstration.
- Figure 17-4-3R, SMS Safety Communications Design Demonstration.

17-4-2-9 ADMINISTRATIVE PROCESS PHASE.

A. CMT Administrative Process. Once all SMS design validation activities are successfully completed, the CMT will close out the validation process by completing the following actions:

1) The CMT POC will ensure that all SMS C DCT records have been closed as listed in the VPP.

2) The CMT POC archives the final CMT VPP with the attached certificate holder Implementation Plan following CMT local office policy.

3) The CMT POC will enter the following PTRS activity record:

a) Enter activity number 1045, 3045, or 5045;

b) Enter “SMSADMCPT” (SMS Administrative Activities Complete) in the “National Use” box; and

c) In the comments section, state that the CMT manager has recommended that the certificate holder’s SMS receive final recognition by the SMSPO.

4) CMT management will, by email or letter, recommend that the SMSPO issue final recognition of the certificate holder’s SMS.

Email: 9-NATL-SMS-ProgramOffice@faa.gov
Letter: Attn: SMS Program Office
AFS-900 National Field Office
45005 Aviation Drive, Suite 131
Dulles, VA 20166

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B. SMSPO Administrative Process Quality Review.

1) Once the SMSPO receives CMT management's recommendation for certificate holder SMS recognition, it will complete its administrative process review. This review ensures that all SMSVP required administrative tasks have been completed. Any issues or required corrections will be coordinated with the CMT SMS POC.

2) Upon satisfactory review, the SMSPO will change the certificate holder's status from "SMSVP Active Participant" to "SMSVP Active Conformance" and issue the certificate holder a current status letter.

17-4-2-11 CONTINUED OPERATIONAL SAFETY (COS). The CMT now begins using SAS Data Collection Tools (DCT) as appropriate for continued oversight of the certificate holder's SMS. CMT oversight of the certificate holder's SMS will be conducted in conjunction with, or integral to, routine certificate management functions.

17-4-2-13 through 17-4-2-27 RESERVED.

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VOLUME 17 SAFETY MANAGEMENT SYSTEM

CHAPTER 4 SAFETY MANAGEMENT SYSTEM VOLUNTARY PROGRAM

Section 3 Continued Operational Safety—Certificate Management Team Monitoring and Surveillance

17-4-3-1 PURPOSE. This section provides guidance for Certificate Management Teams (CMT) to perform continued oversight of a certificate holder's applied safety management processes.

17-4-3-3 SAFETY MANAGEMENT SYSTEM VOLUNTARY PROGRAM (SMSVP) EXPECTATIONS. Volume 17, Chapter 4, Section 1, paragraph 17-4-1-13 clearly states that the CMT is expected to provide ongoing surveillance support to validate a certificate holder's continued conformance to the SMSVP Standard. By doing so, it is anticipated that the CMT will realize significant benefits when performing its certificate holder oversight responsibilities. Regardless, failure of either the certificate holder or the CMT to adequately meet its obligations to SMSVP requirements may result in Safety Management System Program Office (SMSPO) withdrawal of "State recognition."

17-4-3-5 APPLICATION OF SAFETY MANAGEMENT SYSTEM (SMS) TO CONTINUED OPERATIONAL SURVEILLANCE. Once safety management processes and activities have been integrated into the certificate holder's technical processes, the CMT must broaden the scope of its normal surveillance to include the certificate holder's SMS activities. Under a fully functioning SMS, when an inspector finds a regulatory violation or process nonconformance, his/her most important concern is "why didn't the certificate holder's SMS processes identify this problem, and if it was identified, why did the SMS not contain and/or correct this problem?" A certificate holder's SMS increases organizational safety awareness and reduces "plausible excuses of ignorance" regarding systemic safety issues.

17-4-3-7 CMT SURVEILLANCE RECORDS. A CMT must record all safety management assessment activities to demonstrate certificate holder conformance with the SMSVP Standard. CMT surveillance activities, associated with safety management, must be recorded in the Safety Assurance System (SAS) data repository. This is accomplished by using Data Collection Tools (DCT) and associated questions sets designed into existing tools to assess safety management activities.

> NOTE: For those certificate holders not in SAS, the CMT will make Program Tracking and Reporting Subsystem (PTRS) entries as defined in the Continued Operational Safety (COS) job aids.

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Figure 17-4-3A. Safety Management System Voluntary Program Standard

1. Purpose of This Attachment. The Safety Management System Voluntary Program (SMSVP) Standard, when properly applied, is the basis for formal State recognition of a certificate holder's Safety Management System (SMS). The SMSVP Standard, while resembling Title 14 of the Code of Federal Regulations (14 CFR) part 5, Safety Management Systems, is a separate document used by the Flight Standards Service (AFS) SMS Program Office (SMSPO) to evaluate SMSVP participants.

2. Applicability. The SMSVP Standard details the minimum conformance expectations participants must maintain for State recognition of its SMS. Adherence to the SMSVP Standard does not replace compliance with other FAA regulatory requirements. The certificate holder may establish more stringent requirements in its system than those in this Standard.

SAFETY MANAGEMENT SYSTEM VOLUNTARY PROGRAM STANDARD

Subpart A—General.
5.1 Applicability.
5.3 General Requirements.
5.5 Definitions.
Subpart B—Safety Policy.
5.21 Safety Policy.
5.23 Safety Accountability and Authority.
5.25 Designation and Responsibilities of Required Safety Management Personnel.
5.27 Coordination of Emergency Response Planning.
Subpart C—Safety Risk Management.
5.51 Applicability.
5.53 System Analysis and Hazard Identification.
5.55 Safety Risk Assessment and Control.
Subpart D—Safety Assurance.
5.71 Safety Performance Monitoring and Measurement.
5.73 Safety Performance Assessment.
5.75 Continuous Improvement.
Subpart E—Safety Promotion.
5.91 Competencies and Training.
5.93 Safety Communication.
Subpart F—SMS Documentation and Recordkeeping.
5.95 SMS Documentation.
5.97 SMS Records.

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Subpart A—General.

5.1 Applicability.
(a) A certificate holder desiring to implement an SMS must meet all requirements of this Standard and be found acceptable using the validation process as described in the Safety Management System Voluntary Program.

5.3 General Requirements.
(a) Any certificate holder required to have a Safety Management System under this Standard must submit the Safety Management System to the Administrator for acceptance. The SMS must be appropriate to the size, scope, and complexity of the certificate holder's operation and include at least the following components:

(1) Safety policy in accordance with the requirements of subpart B of this Standard;
(2) Safety risk management in accordance with the requirements of subpart C of this Standard;
(3) Safety assurance in accordance with the requirements of subpart D of this Standard; and
(4) Safety promotion in accordance with the requirements of subpart E of this Standard.

(b) The Safety Management System must be maintained in accordance with the recordkeeping requirements in subpart F of this Standard.

(c) The Safety Management System must ensure compliance with the relevant regulatory standards in chapter I of Title 14 of the Code of Federal Regulations.

5.5 Definitions.
Hazard means a condition that could foreseeably cause or contribute to an aircraft accident as defined in Title 49 of the Code of Federal Regulations (49 CFR) part 830, § 830.2.
Risk means the composite of predicted severity and likelihood of the potential effect of a hazard.
Risk control means a means to reduce or eliminate the effects of hazards.
Safety assurance means processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information.
Safety objective means a measurable goal or desirable outcome related to safety.
Safety performance means realized or actual safety accomplishment relative to the organization's safety objectives.
Safety policy means the certificate holder's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees in regards to safety.
Safety promotion means a combination of training and communication of safety information to support the implementation and operation of an SMS in an organization.
Safety Risk Management means a process within the SMS composed of describing the system, identifying the hazards, and analyzing, assessing and controlling risk.

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Subpart B—Safety Policy.

5.21 Safety Policy.

(a) The certificate holder must have a safety policy that includes at least the following:

(1) The safety objectives of the certificate holder.

(2) A commitment of the certificate holder to fulfill the organization's safety objectives.

(3) A clear statement about the provision of the necessary resources for the implementation of the SMS.

(4) A safety reporting policy that defines requirements for employee reporting of safety hazards or issues.

(5) A policy that defines unacceptable behavior and conditions for disciplinary action.

(6) An emergency response plan that provides for the safe transition from normal to emergency operations in accordance with the requirements of 5.27.

(b) The safety policy must be signed by the accountable executive described in 5.25.

(c) The safety policy must be documented and communicated throughout the certificate holder's organization.

(d) The safety policy must be regularly reviewed by the accountable executive to ensure it remains relevant and appropriate to the certificate holder.

5.23 Safety Accountability and Authority.

(a) The certificate holder must define accountability for safety within the organization's safety policy for the following individuals:

(1) Accountable executive, as described in 5.25.

(2) All members of management in regard to developing, implementing, and maintaining SMS processes within their area of responsibility, including, but not limited to:

(i) Hazard identification and safety risk assessment.

(ii) Assuring the effectiveness of safety risk controls.

(iii) Promoting safety as required in subpart E of this Standard.

(iv) Advising the accountable executive on the performance of the SMS and on any need for improvement.

(3) Employees relative to the certificate holder's safety performance.

(b) The certificate holder must identify the levels of management with the authority to make decisions regarding safety risk acceptance.

5.25 Designation and Responsibilities of Required Safety Management Personnel.

(a) *Designation of the accountable executive.* The certificate holder must identify an accountable executive who, irrespective of other functions, satisfies the following:

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(1) Is the final authority over operations authorized to be conducted under the certificate holder's certificate(s).
(2) Controls the financial resources required for the operations to be conducted under the certificate holder's certificate(s).
(3) Controls the human resources required for the operations authorized to be conducted under the certificate holder's certificate(s).
(4) Retains ultimate responsibility for the safety performance of the operations conducted under the certificate holder's certificate.

(b) *Responsibilities of the accountable executive.* The accountable executive must accomplish the following:
(1) Ensure that the SMS is properly implemented and performing in all areas of the certificate holder's organization.
(2) Develop and sign the safety policy of the certificate holder.
(3) Communicate the safety policy throughout the certificate holder's organization.
(4) Regularly review the certificate holder's safety policy to ensure it remains relevant and appropriate to the certificate holder.
(5) Regularly review the safety performance of the certificate holder's organization and direct actions necessary to address substandard safety performance in accordance with 5.75.

(c) *Designation of management personnel.* The accountable executive must designate sufficient management personnel who, on behalf of the accountable executive, are responsible for the following:
(1) Coordinate implementation, maintenance, and integration of the SMS throughout the certificate holder's organization.
(2) Facilitate hazard identification and safety risk analysis.
(3) Monitor the effectiveness of safety risk controls.
(4) Ensure safety promotion throughout the certificate holder's organization as required in subpart E of this Standard.
(5) Regularly report to the accountable executive on the performance of the SMS and on any need for improvement.

5.27 Coordination of Emergency Response Planning.
Where emergency response procedures are necessary, the certificate holder must develop and the accountable executive must approve as part of the safety policy, an emergency response plan that addresses at least the following:

(a) Delegation of emergency authority throughout the certificate holder's organization;

(b) Assignment of employee responsibilities during the emergency; and

(c) Coordination of the certificate holder's emergency response plans with the emergency response plans of other organizations it must interface with during the provision of its services.

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Subpart C—Safety Risk Management.

5.51 Applicability.
A certificate holder must apply safety risk management to the following:
(a) Implementation of new systems.

(b) Revision of existing systems.

(c) Development of operational procedures.

(d) Identification of hazards or ineffective risk controls through the safety assurance processes in subpart D of this Standard.

5.53 System Analysis and Hazard Identification.
(a) When applying safety risk management, the certificate holder must analyze the systems identified in 5.51. Those system analyses must be used to identify hazards under paragraph (c) of this section, and in developing and implementing risk controls related to the system under 5.55(c).

(b) In conducting the system analysis, the following information must be considered:
(1) Function and purpose of the system.
(2) The system's operating environment.
(3) An outline of the system's processes and procedures.
(4) The personnel, equipment, and facilities necessary for operation of the system.

(c) The certificate holder must develop and maintain processes to identify hazards within the context of the system analysis.

5.55 Safety Risk Assessment and Control.
(a) The certificate holder must develop and maintain processes to analyze safety risk associated with the hazards identified in 5.53(c).

(b) The certificate holder must define a process for conducting risk assessment that allows for the determination of acceptable safety risk.

(c) The certificate holder must develop and maintain processes to develop safety risk controls that are necessary as a result of the safety risk assessment process under paragraph (b) of this section.

(d) The certificate holder must evaluate whether the risk will be acceptable with the proposed safety risk control applied, before the safety risk control is implemented.

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Subpart D—Safety Assurance.

5.71 Safety Performance Monitoring and Measurement.
(a) The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, the following:
(1) Monitoring of operational processes.
(2) Monitoring of the operational environment to detect changes.
(3) Auditing of operational processes and systems.
(4) Evaluations of the SMS and operational processes and systems.
(5) Investigations of incidents and accidents.
(6) Investigations of reports regarding potential noncompliance with regulatory standards or other safety risk controls established by the certificate holder through the safety risk management process established in subpart B of this Standard.
(7) A confidential employee reporting system in which employees can report hazards, issues, concerns, occurrences, incidents, as well as propose solutions and safety improvements.

(b) The certificate holder must develop and maintain processes that analyze the data acquired through the processes and systems identified under paragraph (a) of this section and any other relevant data with respect to its operations, products, and services.

5.73 Safety Performance Assessment.
(a) The certificate holder must conduct assessments of its safety performance against its safety objectives, which include reviews by the accountable executive, to:
(1) Ensure compliance with the safety risk controls established by the certificate holder.
(2) Evaluate the performance of the SMS.
(3) Evaluate the effectiveness of the safety risk controls established under 5.55(c) and identify any ineffective controls.
(4) Identify changes in the operational environment that may introduce new hazards.
(5) Identify new hazards.

(b) Upon completion of the assessment, if ineffective controls or new hazards are identified under paragraphs (a)(2) through (5) of this section, the certificate holder must use the safety risk management process described in subpart C of this Standard.

5.75 Continuous Improvement.
The certificate holder must establish and implement processes to correct safety performance deficiencies identified in the assessments conducted under 5.73.

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Subpart E—Safety Promotion.

5.91 Competencies and Training.
The certificate holder must provide training to each individual identified in 5.23 to ensure the individuals attain and maintain the competencies necessary to perform their duties relevant to the operation and performance of the SMS.

5.93 Safety Communication.
The certificate holder must develop and maintain means for communicating safety information that, at a minimum:
(a) Ensures that employees are aware of the SMS policies, processes, and tools that are relevant to their responsibilities.

(b) Conveys hazard information relevant to the employee's responsibilities.

(c) Explains why safety actions have been taken.

(d) Explains why safety procedures are introduced or changed.

Subpart F—SMS Documentation and Recordkeeping.

5.95 SMS Documentation.
The certificate holder must develop and maintain SMS documentation that describes the certificate holder's:
(a) Safety policy.

(b) SMS processes and procedures.

5.97 SMS Records.
(a) The certificate holder must maintain records of outputs of safety risk management processes as described in subpart C of this Standard. Such records must be retained for as long as the control remains relevant to the operation.

(b) The certificate holder must maintain records of outputs of safety assurance processes as described in subpart D of this Standard. Such records must be retained for a minimum of 5 years.

(c) The certificate holder must maintain a record of all training provided under 5.91 for each individual. Such records must be retained for as long as the individual is employed by the certificate holder.

(d) The certificate holder must retain records of all communications provided under 5.93 for a minimum of 24 consecutive calendar-months.

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Figure 17-4-3B. SMS Safety Policy Design Validation

Certificate Holder Designator:		Date:
	Process Area/Department Application:	

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement and document a commitment to safety, which defines its safety objectives and employee safety accountabilities and responsibilities. **Objective:** (FAA Responsibility) Validate that the certificate holder has effectively designed an SMS that incorporates a commitment to safety. **Related Code of Federal Regulations (CFR):** Safety Management System Voluntary Program (SMSVP) Standard 5.21 through 5.27. **Related FAA Policy/Guidance:** Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

1.0 - Safety Policy		
1.1 - Safety Policy		
1)	Does the certificate holder's SMS have a safety policy that includes at least the following minimum requirements: • The certificate holder's safety objectives; • A commitment to fulfill the organization's safety objectives; • A clear statement to commit the necessary resources for implementation of the SMS; • A safety reporting policy that defines requirements for employee reporting of safety hazards or issues; • A policy that defines unacceptable behavior and conditions for disciplinary action; and • An emergency response plan that provides for the safe transition from normal to emergency operations in accordance with the requirements of 5.27, Coordination of Emergency Response Planning?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.21(a)		
Remarks:		

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2)	Does the certificate holder require that its safety policy be: • In accordance with all applicable regulatory requirements in 14 CFR and must reflect the certificate holder's commitment to safety (5.21(a)); • Be signed by the accountable executive described in 5.25 (5.21(b)); • Documented and communicated throughout their organization (5.21(c)); and • Be regularly reviewed by the accountable executive to ensure it remains relevant and appropriate to the certificate holder (5.21(d))?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.21(b); 5.21(c); and 5.21(d)		
Remarks:		
1.2 - Safety Accountability and Authority		
1)	Does the organization's documentation define safety accountability for all organizational personnel, specifically: • The accountable executive (described in 5.25); • All members of management in regard to developing, implementing, and maintaining SMS processes within their area of responsibility; and • Employees relative to the certificate holder's safety performance?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a)(1); 5.23(a)(2); 5.23(a)(3)		
Remarks:		
1.3 - Designation & Responsibility of Required Safety Management Personnel		
1)	Does the certificate holder's processes require that all members of management develop, implement and maintain SMS processes within their area of responsibility to include, but not limited to: • Hazard identification and safety risk assessment; • Assuring the effectiveness of safety risk controls; • Promoting safety as required in subpart E, Safety Promotion; and • Advising the accountable executive on the performance of the SMS and on any need for improvement?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a)(2)		
Remarks:		

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2)	Do the certificate holder's safety management processes identify the levels of management with the authority to make decisions regarding safety risk acceptance?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(b)		
Remarks:		
3)	Do the certificate holder's safety management processes require the accountable executive to designate sufficient management personnel who, on behalf of the accountable executive, are responsible for*:* • Coordinating implementation, maintenance, and integration of the SMS throughout the certificate holder's organization; • Facilitating hazard identification and safety risk analysis; • Monitoring effectiveness of safety risk controls; • Ensuring safety promotion is communicated throughout the certificate holder's organization are required in subpart E, Safety Promotion; and • Regularly reporting to the accountable executive on the performance of the SMS and any need for improvement?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.25(c)		
Remarks:		
1.4 - Coordination of Emergency Response Planning		
1)	Where emergency response procedures are necessary, does the certificate holder develop and the accountable executive approve as part of the safety policy, an emergency response plan that addresses at least the following: • Delegation of emergency authority throughout the organization; • Assignment of employee responsibilities during the emergency; and • Coordination of the emergency response plan with the emergency response plans of other affected organizations (e.g., code share partners, airports, contractors, affiliates, etc.)?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.21(a)(6); 5.27; 5.27(a); 5.27(b); 5.27(c)		
Remarks:		

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1.5 - SMS Documentation		
1)	Does the certificate holder have a process to develop and maintain SMS documentation that describes their safety policy, processes and procedures?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.95(a); 5.95(b); 5.3(b)		

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Figure 17-4-3C. SMS Safety Risk Management Design Validation

Certificate Holder Designator:		Date:
	Process Area/Department Application:	

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Incorporate a process within the SMS designed to identify, analyze, and assess the hazards to mitigate the associated risks. **Objective:** (FAA Responsibility) Validate that the certificate holder has effectively designed an SMS which incorporates a process to identify, analyze, and assess the hazards to mitigate the associated risks. **Related Code of Federal Regulations (CFR):** Safety Management System Voluntary Program (SMSVP) Standard 5.51 through 5.55. **Related FAA Policy/Guidance:** Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

2.0 - Safety Risk Management		
2.1 - Applicability		
1)	Does the certificate holder's SMS require that the organization apply the Safety Risk Management (SRM) process when any of the following conditions occur: • Implementation of new systems; • Revision of existing systems; • Development of operational procedures; and • Identification of hazards or ineffective risk controls identified through the safety assurance processes contained in the SMSVP Standard subpart D.	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.51(a), (b), (c), and (d)		
Remarks:		
2)	Does the certificate holder's SMS define safety accountability for members of management, within their areas of responsibility and authority, regarding development, implementation and maintenance of hazard identification and risk assessment processes?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a)(2)(i)		
Remarks:		

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3)	Does the certificate holder's SMS identify management personnel responsible to facilitate hazard identification and safety risk analysis?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.25(c)(2)		
Remarks:		
2.2 - System Analysis and Hazard Identification		
2.2.1 Process - System Description and Analysis		
1)	When applying SRM, does the certificate holder have a process to describe and analyze the system for use in identifying hazards considering the following information: • The function and purpose of the system; • The system's operating environment; • An outline of the system's processes and procedures; and • The personnel, equipment, and facilities necessary for operation of the system?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.53(a) and (b)		
Remarks:		
2.2.2 Process - Hazard Identification		
1)	Does the certificate holder's SRM process(es) include specific processes to identify hazards within the context of the system analysis?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.53(c)		
Remarks:		

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2.3 - Safety Risk Assessment and Control		
2.3.1 Process - Analyze Safety Risk		
1)	Does the certificate holder's SRM include specific processes to analyze safety risk associated with hazards identified in 5.53(c)?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.55(a)		
Remarks:		
2.3.2 Process - Safety Risk Assessment		
1)	Does the certificate holder's SRM include specific processes for conducting risk assessment that allows for the determination of acceptable safety risk?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.55(b)		
Remarks:		
2)	Does the certificate holder's SRM documentation clearly identify the levels of management with the authority to make decisions regarding safety risk acceptance for the company?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(b)		
Remarks:		
2.3.3 Process - Safety Risk Control		
1)	Does the certificate holder's SRM include specific processes to ensure that risk controls are developed which are necessary as a result of the safety risk assessment process?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.53(a), 5.55(c)		
Remarks:		

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2)	Does the certificate holder evaluate, prior to SRM risk control implementation that the identified risk will be acceptable with the risk control applied?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.55(d)		
Remarks:		
3)	Does the certificate holder's risk management process evaluate the effectiveness of implemented safety risk controls, which includes reviews by the accountable executive?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.73(a)(3)		
Remarks:		
2.4 - SMS Documentation and Recordkeeping		
1)	Does the certificate holder have a process to develop and maintain SMS documentation that describes their SRM processes and procedures?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.95(b)		
Remarks:		
2)	Does the certificate holder's SMS require the organization have a process to maintain records of their SRM outputs for as long as the control(s) remain relevant to their operation, to include: • Records of identified hazards or no hazard risk acceptance; • Records of associated risks with identified hazards, as applicable; • Records of analysis for each risk, as applicable; and • Records of new risk controls approved to mitigate unacceptable risks, as applicable?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.97(a)		
Remarks:		

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Figure 17-4-3D. SMS Safety Assurance Design Validation

Certificate Holder Designator:		Date:
	Process Area/Department Application:	

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Incorporate processes that ensure effective safety risk controls which meet or exceed safety objectives through the collection, analysis, and assessment of data. **Objective:** (FAA Responsibility) Validate that the certificate holder has effectively designed processes that ensure effective safety risk controls which meet or exceed safety objectives through the collection, analysis, and assessment of data. **Related Code of Federal Regulations (CFR):** Safety Management System Voluntary Program (SMSVP) Standard 5.71 through 5.75. **Related FAA Policy/Guidance:** Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

3.0 - Safety Assurance		
3.1 - Safety Performance Monitoring and Measurement		
1)	Does the certificate holder's SMS have processes to acquire and monitor data within the operational environment to detect changes related to the safety performance of the organization including: • Products and services; and • Operational processes?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(a)(1); 5.71(a)(2)		
Remarks:		
3.1.1 Process - Auditing Operational Processes & Systems		
2)	Does the certificate holder's SMS have processes to audit the safety performance of its operational processes, systems, products, and services?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(a)(3)		
Remarks:		

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3.1.2 Process - Evaluations of SMS, Operational Processes & Systems		
3)	Does the certificate holder's SMS have processes to evaluate the safety performance of its operational processes, systems, products, and services?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(a)(4)		
Remarks:		

3.1.3 Process - Investigations of Incidents, Accidents & Potential Noncompliance		
4)	Does the certificate holder's SMS have processes to investigate its operational processes, systems, products and services that include: • Incidents and accidents; and • Reports regarding potential noncompliance or other safety risk controls established in subpart B?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(a)(5); 5.71(a)(6)		
Remarks:		

3.1.4 Process - Confidential Employee Reporting System		
5)	Does the certificate holder's SMS have a confidential reporting system(s) to monitor safety performance that allows employees to: • Report hazards, issues, concerns, occurrences, and incidents; and • Propose solutions and safety improvements?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(a)(7)		
Remarks:		

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3.1.5 Process - Analysis of Data		
6)	Does the certificate holder's SMS have procedures to analyze data acquired from their safety assurance processes described in 5.71(a)(1)–(7), and any other relevant data with respect to its operations, products and services, including at a minimum: • Monitoring of operational processes; • Monitoring of the operational environment to detect changes; • Auditing of operational process and systems; • Evaluations of the SMS and operational processes and systems; • Investigations of incidents and accidents; • Investigations of reports regarding noncompliance with regulations or risk controls established under subpart B, SRM; and • Confidential safety reporting from employees on hazards, concerns, incidents, etc.?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.71(b)		
Remarks:		

3.2 - Process - Safety Performance Assessment		
1)	Does the certificate holder's SMS require the organization to regularly report on the system's safety performance and does the accountable executive review these reports (5.25(b)(5); 5.25(c)5; 5.73(a); 5.75) to: • Ensure compliance with their established safety risk controls (5.73(a)(1)); • Evaluate the performance of the SMS (5.73(a)(2)); • Evaluate the safety risk control effectiveness established under 5.55(c) with identification of ineffective controls (5.73(a)(3)); • Identify changes in the organization's operational environment that may introduce new hazards (5.73(a)(4)); and • Identify new hazards (5.73(a)(5))?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.25(b) and (c); 5.73(a); 5.75		
Remarks:		
2)	Does the certificate holder's organization define accountability for assuring the effectiveness of safety risk controls for all managers in their areas of responsibility?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a)(2)(ii)		

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Remarks:		
3)	Does the certificate holder's processes and procedures ensure that for ineffective controls or new hazards identified during safety performance assessments, they apply Safety Risk Management as described in subpart C?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.73(b)		
Remarks:		
4)	Does the certificate holder's SMS designate management personnel who, on behalf of the accountable executive, are responsible for: • Coordinating implementation, maintenance, and integration of the SMS throughout their organization; • Facilitating hazard identification and safety risk analysis; • Monitoring the effectiveness of safety risk controls; • Ensuring safety promotion throughout their organization as required in subpart E; and • Regularly reporting to the accountable executive on the performance of the SMS and on any need for improvement?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.25(c)(1) through 5.25(c)(5)		
Remarks:		
3.3 - Continuous Improvement		
1)	Does the certificate holder have a process to ensure that the accountable executive directs actions necessary to address substandard safety performance in the system?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.75; 5.25(b)(5)		
Remarks:		

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3.4 - SMS Documentation and Recordkeeping		
1)	Does the certificate holder have a process to develop and maintain SMS documentation that describes their safety assurance processes and procedures?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.95(b)		
Remarks:		
2)	Does the certificate holder's SMS contain a process to maintain records of their safety assurance process outputs for a minimum of 5 years?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.3(b); 5.97(b)		
Remarks:		

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Figure 17-4-3E. SMS Safety Promotion Design Validation

Certificate Holder Designator:		Date:
	Process Area/Department Application:	

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Incorporate a combination of training and communication of safety information to support the implementation and operation of an SMS in an organization. **Objective:** (FAA Responsibility) Validate that the certificate holder has effectively designed an SMS that incorporates training and communication of safety information throughout the organization. **Related Code of Federal Regulations (CFR):** Safety Management System Voluntary Program (SMSVP) Standard 5.91 through 5.93. **Related FAA Policy/Guidance:** Advisory Circular (AC) 120-92, Safety Management Systems for Aviation Service Providers.

4.0 - Safety Promotion		
4.1 - General Expectations		
1)	Does the certificate holder's SMS define accountability for all members of management to promote safety within their area of responsibility in regards to developing, implementing, and maintaining SMS processes?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a)(2)(iii)		
Remarks:		
4.2 - Competencies and Training		
1)	Does the certificate holder's SMS provide training to each individual identified in 5.23 that ensures the individuals attain and maintain the competencies necessary to perform their duties relevant to the operation and performance of the SMS?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.23(a), 5.91		
Remarks:		

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2)	Does the certificate holder's SMS specify that the accountable executive designate management personnel who, on behalf of the accountable executive, ensure that safety is promoted throughout the organization as required by subpart E?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.25(c)(4)		
Remarks:		
4.3 - Safety Communication		
1)	Does the certificate holder have a process to develop and maintain a means for communicating safety information that: • Ensures employees are aware of the SMS policies, processes, and tools relevant to their responsibilities; • Conveys hazard information relevant to the employee's responsibilities; • Explains why safety actions have been taken; and • Explains why safety procedures are introduced or changed?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.93		
Remarks:		
4.4 - SMS Documentation and Recordkeeping		
1)	Does the certificate holder have a process to develop and maintain documentation that describes the organization's SMS processes and procedures?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.95(b)		
Remarks:		
2)	Does the certificate holder maintain employee records of all safety management-related training provided under 5.91 for each individual and retain such records for as long as the individual is employed by the certificate holder?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.3(b), 5.97(c)		

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Remarks:		
3)	Does the certificate holder retain the records of all safety communications provided under 5.93 for a minimum of 24 consecutive calendar-months?	☐ Yes ☐ No
SMSVP Standard 03-09-2015: 5.3(b), 5.97(d)		
Remarks:		

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Figure 17-4-3F. SMS Safety Policy Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Policy	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that the organization's safety policy has been conveyed to employees throughout the organization to include:

- A safety reporting policy for employee reporting of safety hazards or issues;
- A policy that defines unacceptable behavior and conditions for disciplinary action;
- Safety accountability within the organization.

Directions:
There are five basic subobjectives associated with this design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

During design validation, the CMT reviewed and accepted the certificate holder's safety policy. The CMT must now confirm that the certificate holder has communicated this policy to employees applying or supporting its technical operations. The CMT should substantiate:

1) The certificate holder's communication guidance is being followed; and

2) The effectiveness of the certificate holder's communication strategy (i.e., employees understand how they can directly support safety policy in their day-to-day work activities).

A certificate holder's safety policy must also define its process for reporting "safety hazards or issues." Safety policy validation can be undertaken during regularly scheduled surveillance activities, or independently. Validating safety policy reporting and communications procedures can be done by interviewing employees at all levels of an organization.

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Criteria:

- The certificate holder's process must effectively communicate its safety policy at all levels of the organization to existing, new, and temporary employees, as applicable.

- All levels of management should be aware of their responsibility and accountability for safety in their organization. Individual managers are responsible for developing, implementing, and maintaining SMS processes within their technical areas. Members of management must be aware of their accountability and competence at:

    - Hazard identification and safety risk assessment;
    - Assuring the effectiveness of safety risk controls;
    - Promoting safety; and
    - Advising the accountable executive on the performance of the SMS and any need for improvement.

- All employees at all levels must know what is acceptable and unacceptable behavior and conditions for disciplinary action.

- All employees at all levels must know or be able to find the process for safety hazard and issue reporting (employee reporting). Several validation samples of personnel actually completing a hard copy or electronic sample submission should be accomplished.

  NOTE: Processing identified hazards may be accomplished as a separate validation activity or as a part of the safety policy validation, if the certificate holder's process is not complex. If the certificate holder uses a corrective or preventive action process to resolve hazard reports, the CMT may wish to review the hazard report processing when it validates the corrective or preventive action process. The CMT should determine that the record includes information on the source of the input (e.g., Hazard Reporting Process – Department) (see Figure 17-4-3N, SMS Continuous Improvement Process Design Demonstration).

Validation Repeatability: It is recommended that this validation be repeated in as many technical operational areas as necessary to ensure that organization's communications mechanisms effectively accomplish the stated objective of this test. It is further recommended that the CMT add these validations to its regular surveillance activities and not expend resources on independent "SMS only" validation work for an area/department, unless the area/department sampling demonstrates failure.

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Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement a safety policy that includes the detection and reporting of unacceptable behavior and the conditions for the disciplinary action and accountability of the safety within their organization. **Objective:** (FAA Responsibility) Confirm through design demonstration that the implementation of the safety policy has been effectively conveyed to all employees throughout the organization.

Data Collection Tool Questions – Record of Results:

		YES	NO
1	Do employees at all levels of the organization demonstrate awareness of their system for employee reporting of safety hazards or issues? Note(s): The demonstration of employee awareness is assessed from employee interviews. Ref: *SMSVP Standard 03-09-2015, 5.21(a)(4)*		
2	Do employees at all levels of their organization demonstrate awareness of unacceptable safety behavior and conditions for disciplinary action? Note(s): The demonstration of employee awareness is assessed from employee interviews. Ref: *SMSVP Standard 03-09-2015, 5.21(a)(5)*		
3	Do employees at all levels of the organization demonstrate awareness of their defined safety accountability (i.e., can they relate safety objective(s) to their job)? Note(s): The demonstration of employee awareness is assessed from employee interviews. Ref: *SMSVP Standard 03-09-2015, 5.21(a)(1); 5.23(a)*		

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Figure 17-4-3G. SMS Emergency Preparedness/Response Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Policy	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that the certificate holder can effectively transition from normal operations to emergency operations without compromising safety. A secondary objective is to ensure that managers in contact with other organizations also having emergency response plans (ERP) have documented evidence that their respective ERPs are coordinated.

Directions:
There are five basic subobjectives associated with this design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder's ERP process was reviewed and accepted during CMT design validation. The CMT must now ensure these processes are effective by validating the certificate holder's ability to move select individuals out of normal daily operations and that those operations continue to effectively function during their absence.

It is important to verify that when key decisionmakers are unavailable to fulfill their responsibilities, the certificate holder has position proxies or a backup plan to maintain the affected processes. The CMT must ensure that the organization's "backup strategy" (people and processes) will work.

A certificate holder's ERP documentation should identify substitutes for those that must participate in emergency activities and are unavailable to perform normal duties. The CMT may test:

1) How the person is notified of their additional duties;

2) That, as a proxy, they have the competencies (training) to perform the additional duties; and

3) That the person is knowledgeable of these duties or can identify appropriate guidance required for performance.

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The CMT will require evidence that the certificate holder is coordinating its ERP with other organizations' emergency plans. Evidence of coordinated ERPs may be located in meeting minutes, documents, and/or supplier contracts. When the certificate holder documents its ERP coordination in proprietary documents (e.g., contracts, etc.) it may provide excerpts (redacted information) as proof of performance.

Criteria: The CMT uses a certificate holder's ERP to identify several key samples for testing.

- That proxies for risk decisionmakers have been identified, that have been removed from normal operations to conduct emergency operations.
- The limitation of the authority of those proxies is defined.
- A proxy has the authorities and competencies (training) required by the organization to make safety-related decisions for the process area (e.g., Safety Risk Management (SRM) activities, corrective action oversight, etc.).
- The organization shows satisfactory documentation that ERPs are coordinated with external business partners that have ERPs (e.g., code share partners, airports, etc.).

Validation Repeatability: Validations for proxies should be sampled using the ERP to identify process area samples. The CMT may test each process area individually during normal, routine surveillance or the CMT may perform a single "tabletop" activity to verify proxies' knowledge of their duties and responsibilities. Certificate holder's ERP coordination with external parties may be validated as a single activity if they have developed a common record repository.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement an ERP as necessary, without compromise to safety including documented organizational interfaces.
Objective: (FAA Responsibility) Confirm through design demonstration that the certificate holder can effectively transition from normal operations to emergency operations without compromising safety.

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Data Collection Tool Questions – Record of Results:

		YES	NO
1	Does the certificate holder clearly identify "proxies" and the assignment and limitations of their authority to perform safety management responsibilities when select individuals are moved from daily into emergency operations? Note(s): A proxy is delegated emergency authority to represent and perform duties of an individual during their absence. Ref: *SMSVP Standard 03-09-2015, 5.27(a); 5.27(b)*		
2	Does the proxy understand their defined limitations and authority as documented by the certificate holder for instances where emergency authority is delegated? Ref: *SMSVP Standard 03-09-2015, 5.27(a)*		
3	Does the certificate holder have documentation that those identified with delegated authority (proxies) have the competencies (i.e., qualification, training, knowledge, and experience) required by the organization to make safety-related decisions for their process area (e.g., SRM activities, corrective action oversight, etc.)? Ref: *SMSVP Standard 03-09-2015, 5.91*		
4	Does the certificate holder have documentation that emergency response plans are coordinated with external business partners that have emergency response plans (e.g., code share partners, airports, etc.)? Ref: *SMSVP Standard 03-09-2015, 5.27(c)*		

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Figure 17-4-3H. SMS SRM (Process/Department Owner) Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Risk Management	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that those individuals or groups: accept supplier guidance materials into their process area; and/or have the authority to draft and approve new or revised procedural changes for their process area, can effectively apply the organization's Safety Risk Management (SRM) process to those process procedures.

> NOTE: There is another validation test for the corporate level SRM Process (see Figure 17-4-3J, SMS SRM (Organizational) Design Demonstration). In this test, multiple process areas are affected and process owners must interact determining the perceived risks and mitigations (e.g., adding a new aircraft fleet, implementing new multifaceted software solution across process areas, etc.).

Directions:
There are five basic subobjectives associated with this design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder's SRM process was reviewed and accepted during CMT design validation. Next, the CMT must ensure that process owners throughout the system can perform SRM. Since SRM is applicable only to "design change," the CMT should evaluate how guidance documents, used by the certificate holder's workforce, are revised. The CMT should identify those drafting and authorizing guidance document changes. During this evaluation the CMT may find that a manager does not always draft guidance changes or review supplier provided documents for acceptance into the system. It is, therefore, important to identify who is actually performing work associated with the SRM process steps and determine what risk acceptance authority they have under the certificate holder's defined process.

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Understanding that new or revision of personnel guidance is vital to SRM applications, the CMT should concentrate on the organization's application of SRM in their document control and approval process. Realizing that any design change in these documents has an SRM recording requirement attached to it, it is important that the CMT validate:

1) What person(s) is making decisions regarding design change for the process area;
2) Is there documented evidence that this person(s) has been trained to perform these duties; and
3) Who has been designated to sign off on the document (accept risk) for the process area?

In smaller organizations, a single person may have the authority to perform the entire SRM process steps. In larger organizations or organizations with complex process areas (e.g., maintenance department for large airlines, etc.), the authority to perform specific aspects of the SRM process may be delegated to subordinates. In these situations, the CMT needs to identify the first SRM decisionmaker (hazard identification) and trace the process up through the chain of command until the person authorized to "accept risk" (i.e., sign off the design change) is identified.

For SRM samples that result in the development of new controls added to a process procedure, there should be a documented record of the outputs for the following processes:

1) Identified hazards;
2) Associated risks for each hazard;
3) Analysis for each risk; and
4) Any new control(s).

Criteria:

- The person conducting an SRM required activity is given that authority by the certificate holder. Training is documented to demonstrate competency to perform the specified activity(ies).

- The required records for each required SRM activity are complete (minimum record is a "no hazard" signoff for new or revised process/procedural change). When decisionmakers identify risks and new controls, the required records are:

    - List of hazards;
    - List of risks associated with each hazard;
    - Analysis of each risk; and
    - Record of mitigation (controls).

- Escalation and Traceability – when a single person is not responsible for all decisions related to the SRM process, the "decisionmaking chain of command" must be evaluated to ensure:

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- Persons performing some, but not all, SRM process activities are authorized by the organization to do so and competent (trained) to perform those activities.
- Escalation interfaces of SRM activities from one level of process manager to a higher level of process manager allows a positive transfer to occur.
- Escalation of SRM process activities is traceable from one process owner to another.
- Transference of SRM process steps between authorized personnel is monitored to prevent failure of the transfer process.

Validation Repeatability: The CMT shall repeat the validations in all process areas and for as many process owners or process owner escalations as the CMT finds necessary to ensure full integration of the SRM process to the lowest levels of decisionmaking within a process area. Since SRM is one of the most critical SMS components, SRM process owner validation must be very thorough.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Process Purpose: (Certificate Holder Responsibility) Implement safety risk of all safety-critical processes at the process owner and/or department level. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder can effectively apply the organization's Safety Risk Management (SRM) process to all safety-critical processes within the process owner's department.

Data Collection Tool Questions – Record of Results:

		YES	NO
1	Do individuals or groups that accept supplier guidance materials into their process area(s) understand that updates or changes to these materials requires safety risk management be conducted before it is used in the system? Ref: *SMSVP Standard 03-09-2015, 5.51*		
2	Do individuals or groups that have the authority to draft and approve new or revised process and procedural changes for their process area(s), understand their responsibility to conduct safety risk management on those changes/materials before they are used in the system? Ref: *SMSVP Standard 03-09-2015, 5.51*		
3	Does the certificate holder clearly define individuals or groups that are performing safety risk management process steps and accepting risk for the process area(s) being assessed? Ref: *SMSVP Standard 03-09-2015, 5.23(a) and (b)*		
4	Does the certificate holder have documentation showing the individuals who complete safety risk management-related process steps have the competencies (i.e., qualification, training, knowledge, and experience) to properly perform those activities? Ref: *SMSVP Standard 03-09-2015, 5.91*		

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5	When the organization has identified hazards or ineffective risk controls, can the SRM process documentation be traced to ensure the following recording requirements are met: • Record(s) of identified hazards or lack of hazards; • A list of risks associated with each existing hazard; • Analysis of each risk; • Record of mitigation (controls) for unacceptable risks; • Record of safety risk acceptance decision(s) by authorized individual/group; and • Verification of safety risk control effectiveness prior to final risk acceptance? Ref: *SMSVP Standard 03-09-2015, 5.3(a)(2), 5.51(d), 5.73(a)(3)*		

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Figure 17-4-3J. SMS SRM (Organizational) Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Risk Management	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) must validate, to the extent necessary, the certificate holder's process for conducting integrated Safety Risk Management (SRM) when multiple departments are affected by a system change.

> NOTE: This SRM test is not to be confused with a process owner/department level SRM, if the certificate holder defines different process steps for "multidepartment" SRM (see Figure 17-4-3H, SMS SRM (Process/Department Owner) Design Demonstration). It is highly recommended that process owner/department SRM be assessed before testing the corporate SRM process.

Directions:
There are five basic subobjectives associated with this design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The organization's corporate SRM process was reviewed and accepted during CMT design review validation. The CMT next ensures that process owners/department representatives can perform corporate level SRM.

The certificate holder has a process to identify hazards and associated risks, analyze risks, and develop new risk controls that affect multiple process owner/departments within its organization. SRM decisionmaking and recording requirements are the same as those for "process owner/department SRM," except there are more complex interfaces between departments and require process owner/department leadership to coordinate the required risk mitigations. In addition, final risk acceptance for an organization may be made at a management level above the process owner or by a committee. It is important that the CMT understand and validate these differences between the corporate and process area SRM processes, as applicable.

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The CMT will determine whether the corporate level interfaces allow for all required SRM activities to be completed and documented. The CMT will ensure that those conducting corporate SRM activities have the authority and competencies (training) required. It is recommended that corporate SRM validation follow the process owner SRM validations. This allows the CMT to identify how individual process owners process SRM risk decisions within their technical area before they participate in the "higher level" corporate SRM process.

The corporate level SRM performance validation test is one of two final validation tests jointly conducted by the CMT, SMS Program Office, and certificate holder.

Criteria:

- The person(s) conducting the corporate level SRM activities have been given the authority by the certificate holder and it is documented the person(s) are competent to perform the specified activity(ies).
- The records for each required SRM activity are complete.
- The certificate holder has included, through documented record, each process owner stakeholder who must contribute to a collective risk decision and their respective inputs have been recorded as required by the corporate SRM process (e.g., meeting minutes with attendance rosters, required process owner submissions attached to meeting minutes, etc.).

Validation Repeatability: This performance validation only needs to be conducted once. It is normally one of the last validation tests before the certificate holder's SMS is accepted. The CMT and Safety Management System Program Officer (SMSPO) will perform this validation jointly. It is highly recommended that a corporate SRM test include as many process owner areas/departments as possible. If the test sample does not include all process owner areas, the CMT should require that all process owners/departments are represented during a test (i.e., during a tabletop exercise). This sequence allows the CMT and SMSPO to ask pertinent questions.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Integrate SRM across multiple departments when affected by changes to their environment/systems. **Objective:** (FAA Responsibility) Confirm through design demonstration, the certificate holder is capable of conducting integrated SRM when multiple departments are affected by a system change.

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Data Collection Tool Questions – Record of Results:

		YES	NO
1	When multiple departments are affected by a system change, is there clear documentation that all affected process owners participate in a collective (organizational) risk assessment? Ref: *SMSVP Standard 03-09-2015, 5.51*		
2	When the organization has identified hazards or ineffective risk controls, can the SRM process documentation be traced to ensure the following recording requirements are met: • Record(s) of identified hazards or lack of hazards; • A list of risks associated with each existing hazard; • Analysis of each risk; • Record of mitigation (controls) for unacceptable risks; • Record of safety risk acceptance decision(s) by authorized individual/group; and • Verification of safety risk control effectiveness prior to final risk acceptance? Ref: *SMSVP Standard 03-09-2015, 5.3(a)(2), 5.51(d), 5.73(a)(3)*		
3	Does the certificate holder have documentation showing the individuals or group who complete the organizational safety risk management-related process steps have the competencies (i.e., qualification, training, knowledge, and experience) to properly perform those activities? Ref: *SMSVP Standard 03-09-2015, 5.91*		
4	Does the certificate holder clearly document that the individual(s), who have the authority to accept risk for the organizational SRM process, are appropriately performing that responsibility? Ref: *SMSVP Standard 03-09-2015, 5.23(b), 5.55(b)*		
5	Is there documentation that certificate holder personnel have provided their respective inputs required by the organization's SRM process? Note(s): Inputs can include meeting minutes with attendance rosters, required process owner submissions attached to meeting minutes, etc. Ref: *SMSVP Standard 03-09-2015, 5.55(b)*		

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Figure 17-4-3K. SMS Audit Process Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Assurance	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that the certificate holder is periodically conducting audits to assess process function against defined process requirements. The CMT must ensure that the organization uses competent auditors, their reviews are system-wide, and there is an effective process to identify and correct nonconformance.

Directions:
There are five basic subobjectives associated with this design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder is expected to conduct audits to monitor the system to ensure that it functions as designed. Audits should be conducted by personnel with requisite competencies in the process area being reviewed to ensure an in-depth and detailed audit is performed. Often, audits are conducted by auditors independent of the process area. However, an auditor that does not have detailed knowledge of the process requirements, and the intended outcomes, usually provides only obvious process nonconformance.

It is important that the CMT ensure that audits are performed on all operational processes and systems. It is also important that the certificate holder identifies the minimum baseline frequency of assessments to satisfactorily monitor the process area and may develop an audit schedule to facilitate this. However, the organization may elect to perform additional process audits for a variety of reasons (e.g., effectiveness validation of a corrective action, a mitigation activity for a risk being monitored, an independent assessment by the evaluations team, etc.).

The CMT must ensure that auditor-identified nonconformance items are acted upon. The CMT may confirm correction of the nonconformance by determining if the certificate holder is using a corrective action tracking log or other method. Whatever the certificate holder uses, the audit should not be closed out until nonconformance items are transferred to the appropriate resolution process.

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Criteria:

- Each critical process area/department is within the scope of the audit process and there is a strategy or audit schedule for periodic monitoring to occur.
- Audits are conducted by qualified personnel with competencies in the audit areas.
- Audit findings of nonconformance are appropriately tracked and corrective or preventive action (negative trends), and any associated action plans, are appropriately closed out.
- Corrective or preventive actions resulting from audits are not closed without effectiveness verification by qualified personnel.
- Corrective or preventive actions resulting from audits were spot checked by the CMT to ensure all proposed actions were implemented prior to closing the action. The CMT should choose as many verification samples as it feels appropriate to ensure process owners are following through on proposed actions. Often a CMT will choose its sampling based on identified process risks or process criticality.
- For corrective or preventive actions resulting from audits that identify a procedural change, there must be appropriate objective evidence of SRM being conducted (see Figure 17-4-3H, SMS SRM (Process/Department Owner) Design Demonstration).

Validation Repeatability: The CMT may wish to assess the completeness of the audit process as a single validation activity if a specified person or group in the organization manages the audit program. If validated in this manner, the CMT may pick specific audit findings of nonconformance for multiple process owner areas to validate the audit process from the data collection phase through the correction phase.

The organization's audit process should require individual process owners to conduct their own internal process audits. The CMT should validate the completeness of the process owner audits using multiple validation activities (process owner by process owner).

Regardless of how audits are organized, it is recommended that the certificate holder's audit outputs be compared against the CMT assessments to discern whether the audit yielded outputs "equal to" or "better than" the CMT assessment outputs. The certificate holder's audits should always be more thorough than that of an external assessor, including those of the FAA.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Perform periodic audits to assess process performance against defined process requirements, and process nonconformance identification and correction procedures. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder is periodically performing audits to assess process performance against the defined requirements.

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Data Collection Tool Questions – Record of Results:

		YES	NO
1	For the process area being assessed, is the certificate holder completing its planned audits on all safety processes to gather data for use in assessing system performance? Ref: *SMSVP Standard 03-09-2015, 5.71(a)(3)*		
2	Are the certificate holder's process area audits being conducted by personnel who have the identified competencies (i.e., qualification, training, knowledge, and experience) to appropriately assess the assigned process? Ref: *SMSVP Standard 03-09-2015, 5.91*		
3	Does the certificate holder's audit findings document that nonconformances are appropriately assigned and corrected? Ref: *SMSVP Standard 03-09-2015, 5.71(a)*		

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Figure 17-4-3L. SMS Evaluation Process Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Assurance	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that a person or group within the certificate holder organization is analyzing aggregate data to measure and evaluate process area performance. These evaluations must include the status of defined organizational objectives and the status of process owner compliance with required safety management activities. Evaluations are independently reported to executive management.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder is expected to conduct evaluations to monitor performance across the system. Evaluations should be conducted by an individual or team independent of the process owners/department managers. Evaluations should target aggregate data from multiple data sources including: results of audits, trend data from department records generated, records required to measure progress towards defined safety objectives, corrective action/preventive action effectiveness, observations, or any other relevant data.

The individual or group should have unrestricted access to executive management as an independent reporting source. The CMT will assess the certificate holder's ability to manage safety through independent evaluations of processes and activities. It is important that the CMT understand the inputs used for evaluations to ensure that evaluations are being appropriately applied across the system.

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Criteria:

- Ensure each process area/department is within the scope of the evaluations process.
- Ensure that the evaluation person/team reports to executive management independent of process owner/department management to validate process performance claims by those managers.
- Ensure that evaluation reports assess whether the organization is meeting its safety objectives.
- An effective evaluation process should consider the following inputs:
    - Results of audits;
    - Results of investigations;
    - Results of corrective or preventive actions to include effectiveness evaluations;
    - Results of actions directed by executive management reviews;
    - Results of continuous monitoring activities directed by process owners;
    - Results of hazard reporting; and
    - Results of new control effectiveness that were implemented by process owners since the last evaluations reporting period.

Validation Repeatability: The CMT may wish to validate the completeness of the evaluations process as a single validation activity after all SMS expectations have been implemented system-wide and this data is available for evaluation. This ensures that there is enough aggregate data from all process owner areas to ensure evaluation completeness. Once the CMT is confident that evaluations are being conducted system-wide, it may only be necessary to validate one evaluation. The CMT should review how the results of the evaluations are reported to executive management (reporting mechanism) and how the certificate holder ensures repeatability (e.g., a management review type process which may include evaluation reports, etc.).

Conversely, the CMT may wish to conduct several validation activities if they determine that independent process area evaluations reviews would offer greater flexibility to the CMT during the validation process.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Measure, evaluate and report to executive management process area data on performance and compliance of required safety management activities. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder measured, evaluated and reported to executive management, the process area data on performance and compliance of required safety management activities.

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Data Collection Tool Questions – Record of Results: **YES** **NO**

1	Does the certificate holder conduct evaluations to monitor safety-related performance across its systems and operational processes? Ref: *SMSVP Standard 03-09-2015, 5.71(a)(1)*		
2	Does the certificate holder review and analyze the aggregate data acquired from various safety assurance input sources such as: • Audits; • Investigations; • Corrective/preventive actions including effectiveness evaluations; • Actions directed by executive management reviews; • Continuous monitoring activities directed by process owners; • Hazard reporting; and • New control effectiveness after implementation? Ref: *SMSVP Standard 03-09-2015, 5.71(b)*		
3	Do the certificate holder's evaluation reports assess whether the organization is meeting its defined safety objectives? Ref: *SMSVP Standard 03-09-2015, 5.73(a)*		
4	Does the person/team who performs safety evaluations within the certificate holder's organization report directly to executive management to independently validate process area safety performance? Note(s): These evaluations are to be separate from process owner/department management reports. Ref: *SMSVP Standard 03-09-2015, 5.23(a)(2)(iv), 5.25(c)(5)*		

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Figure 17-4-3M. SMS Investigation Process Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Assurance	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that those persons/positions assigned to conduct investigations of incidents and accidents are capable of performing those duties. The CMT will determine if a certificate holder's investigation process follows a formal process to collect and analyze target specific data (e.g., accidents, incidents, regulatory violations, etc.). The CMT will assess if the process determines causal factors and develop process corrections, as necessary, to correct system deficiencies and improve the safety performance of the organization.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The steps of an investigations process is not substantially different than the process steps associated with a certificate holder's corrective action processes. Investigations are focused on defined events (e.g., accident, incident, etc.) and may require special data collection activities to aid process owners in their analysis and subsequent corrective actions (e.g., one investigatory practice may include interview information from event witnesses). The required investigation process steps should be defined by the organization in its guidance documents. The CMT only needs to ensure that personnel, authorities, competencies, and process steps are understood and/or demonstrated in defined accident or incident documentation.

Therefore, it is important that investigation records identify "who" conducted certain activities so the CMT can validate authorities and competencies of those individuals.

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Criteria:

- The investigation process steps should be understood by those persons/positions defined by the organization.
- Any accident or incident investigation process steps should be completed using actual samples.
- The person/position responsible to complete the investigation includes any documentation required by the certificate holder.
- Investigations are implemented in a timely manner to preserve evidence associated with the event.
- Any investigation activities requiring an interface with other processes used to maintain system integrity (e.g., SRM, Preventive Action/Preventive Action, Voluntary Self Disclosure, etc.) are complete and traceable to the associated investigation.
- Investigations should not be fully closed until the certificate holder has validated all required actions required by the certificate holder investigation process were implemented.
- Required actions must be evaluated for effectiveness before the investigation is considered complete (determine whether system deficiencies have been corrected to improve the safety performance of the organization).

Validation Repeatability: The CMT may wish to validate the investigations process by selecting samples from completed accident or incident investigation records to ensure process steps were completed by authorized personnel. The CMT may wish to combine the investigations process validation with other, similar, corrective action processes or independently validate the investigations process. If a specific person or team coordinates investigations for the entire organization, the validation may be completed as a one-time event by interviewing the coordinator and reviewing documentation samples. If the certificate holder identifies multiple process owners as having investigation authority, more samples may be warranted. To save time, the CMT may wish to perform a tabletop exercise with parties responsible to conduct investigations on behalf of the certificate holder and then sample associated records as a separate validation event.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement a formal process for investigating incidents and accidents including determination of causal factors and a process for developing corrective actions to improve the safety performance of the organization. **Objective:** (FAA Responsibility) Confirm through design demonstration that the formal process for investigating incidents and accidents determines causal factors and develops corrective actions to improve the safety performance of the organization.

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Data Collection Tool Questions – Record of Results:

		YES	NO
1	Do personnel that conduct investigations of incidents, accidents or other certificate holder defined events have the competencies (i.e., qualification, training, knowledge, and experience) to perform their safety management-related duties and responsibilities? Ref: *SMSVP Standard 03-09-2015, 5.71(a)(5)*		
2	Do personnel that are qualified to conduct investigations of incidents, accidents or other certificate holder defined events follow the organization's process to collect and analyze investigatory data? Ref: *SMSVP Standard 03-09-2015, 5.71(a)(5)*		
3	Are corrective actions resulting from the investigatory process being evaluated for effectiveness (i.e., determine whether system deficiencies and ineffective controls have been corrected to improve the safety performance of the organization)? Note(s): Before the investigation is considered complete, system deficiencies and ineffective controls must be corrected. Ref: *SMSVP Standard 03-09-2015, 5.73(a)(3), 5.75*		
4	As a result of an investigation leading to new or revised processes or procedures, does the certificate holder have clear documentation showing that the safety risk management process was completed prior to deployment into the system? Ref: *SMSVP Standard 03-09-2015, 5.51(a), (b), and (c)*		

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Figure 17-4-3N. SMS Continuous Improvement Process Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Assurance	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) need to validate, to the extent necessary, that technical process integrity is being managed to correct substandard safety performance by implementing corrective or preventive action when necessary. It is important that the CMT ensures that the certificate holder takes defined action when a process nonconformance has occurred or negative trends suggest a potential nonconformance will occur.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder is expected to monitor its system processes in a variety of ways (e.g., audit, evaluations, hazard reporting, investigations, daily/weekly/monthly record reviews, etc.). When any monitoring mechanism identifies actual or potential process failure, the certificate holder must take action to correct or prevent a nonconformance and maintain process integrity to its original design expectation. The CMT will validate that process owners responsible for these actions complete all the required process steps in the certificate holder's process, provide proof of action implementation, and have not closed the action until an "effectiveness evaluation" has been completed.

The effectiveness evaluation should be defined by the process owner during the action determination phase of the process and should be documented on a tracking record to direct the follow-up evaluation. The effectiveness evaluation may be conducted by the process owner/proxy or another person/group/department in the organization that can understand the follow-up evaluation requirements.

Corrections and preventions should be closed in a timely manner. ("Timely" means that the organization has proof that they are actively moving toward resolution or they have set targeted objectives and recorded progress on those objectives.) Often lengthy corrections/preventions are associated with complex or expensive solutions. If noncomplex corrections and/or preventions are not making progress toward final solution, the CMT should discuss the issue(s) with the

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process owner to determine causes for the delays. It should be noted that the organization should implement temporary risk mitigations (e.g., cease an operation, use communication backup plans, perform frequent checks, etc.) until the final action plan is fully implemented. The CMT should also question the integrity of the temporary mitigations that were put in place until the corrective or preventive action is implemented.

One way to ensure an effective preventive/corrective action process is to use a tracking system. Some attributes and activities associated with an effective preventive/corrective action tracking process are as follows:

- The document used to track preventive/corrective action has sufficient "general information" to identify the input source (e.g., audit finding, employee report, etc.), date opened, unique tracking number for traceability reference, and the identification of the responsible process owner who will oversee the process activities, and other process owner interfaces.
- The tracking document provides the immediate actions used to "contain" the problem, allowing the process to continue functioning safely until a final solution is implemented.
- The tracking document provides a location to record root cause analysis associated with the process.
- The action plan is not closed without an effectiveness evaluation by qualified personnel.
- In addition to reviewing the status of a large sample of tracking documents for specific process owners/departments, specific action plans should be selected by the CMT representative to validate that all process steps identified in the action plan were fully implemented. There should be sufficient evidence to verify full implementation of the selected samples.
- For corrective or preventive actions leading to a process design change, there should be clear, traceable evidence to a completed Safety Risk Management (SRM) process record.

Criteria:

- The certificate holder must establish and implement processes to correct identified substandard safety performance.

Validation Repeatability: The CMT may decide to validate the corrective or preventive action process independently or add to a regularly planned assessment where records would be easily accessed. The CMT may also decide to perform the validation in two phases:

1) Perform a high level validation of the corrective or preventive action process by thorough examination of associated records and validating signature authorities, process training records, and timely closure of the process action plans; and

2) Select specific samples that require onsite validations and add these validation activities to regular surveillance activities for specific process owners/departments.

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The CMT may decide to add this validation to selected, prescheduled, process area surveillance activities. During surveillance activity, the inspector should ask to see the process owner's documentation as required by the certificate holder's process (e.g., tracking records from audits, management review, employee reports, investigations, continuous monitoring, etc.) and complete the review defined in the previous paragraph. Basically, the only difference in this approach is the CMT's preference as to how it wishes to initiate the assessment.

Regardless of technique, it is very important that the CMT performs enough validation activities to ensure the consistency of process owners "follow-through" across the organization.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Manage technical process integrity through corrective or preventive actions, including current and future nonconformance.
Objective: (FAA Responsibility) Confirm through design demonstration that the certificate holder managed its technical process integrity through corrective or preventive actions, including current and future nonconformance.

Data Collection Tool Questions – Record of Results:

		YES	NO
1	Is there clear documentation that the designated process owners who implement corrective or preventive actions for the certificate holder maintain the safety performance of their process area(s)? Ref: *SMSVP Standard 03-09-2015, 5.23, 5.73*		
2	Is there clear documentation that all levels of organizational management contribute mitigation strategies to correct negative safety trends or potential nonconformance within the system? Note(s): Levels of organizational management can be found on an organizational chart. Ref: *SMSVP Standard 03-09-2015, 5.23(a)(2), 5.25, 5.75*		
3	Do all the certificate holder's members of management and personnel, relative to their safety performance, have the competencies required by the organization to perform those functions (i.e., qualification, training, knowledge, and experience)? Ref: *SMSVP Standard 03-09-2015, 5.23(a) 5.91*		
4	Does the certificate holder analyze the quality of all relevant data outputs of continuous improvement actions at the appropriate levels of the organization? Ref: *SMSVP Standard 03-09-2015, 5.71(b)*		
5	For corrective or preventive actions leading to new or revised process design, does the certificate holder have clear documentation showing that the safety risk management process was completed prior to deployment into the system? Ref: *SMSVP Standard 03-09-2015, 5.51(a) and (b), 5.55(c)*		

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Figure 17-4-3P. SMS Accountable Executive Review Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Policy	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) must validate, to the extent necessary, that the certificate holder's accountable executive is involved in the system-wide safety management efforts. The accountable executive must have adequate knowledge to play an active role in directing actions relevant to resolving safety performance deficiencies in the system.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder's accountable executive was identified using a SMSVP job aid during design validation. The accountable executive is defined as a key leadership individual in the organization's business tier that has ultimate authority over safety operations and organizational resources. As a result, it is important that the accountable executive is aware of safety performance data and information collected from the system so that he/she may direct any necessary actions and/or resources to support safety initiatives.

It is important that the accountable executive:

1) Hold periodic meetings to review collected data and information to assess the safety performance of the organization;

2) At a minimum, review key data/information inputs defined by the SMSVP Standard; and

3) Direct appropriate action, as warranted.

Accountable executive directed actions should be processed in the same manner as other corrections made in system processes. These methods include corrective and/or preventive action, investigations, SRM process corrections, etc.

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Criteria:

- The organization has a process for the accountable executive review (e.g., management review).
- Objective evidence can be obtained to support that executive management reviews are being performed.
- Management reviews should include those required by the accountable executive, but at minimum:
    - Information on the effectiveness of safety risk controls (usually results from audits for each process owner/department, external audits, continuous monitoring outputs, voluntary disclosure reporting program, etc.).
    - Information on the effectiveness of safety risk controls established since the last reporting period (these reports are usually the results of the effectiveness evaluations from corrective or preventive actions and SRM).
    - Information on changes to operational environments and associated new hazards (e.g., things not in control of the certificate holder: regulatory changes, airport configuration changes, changes to approach or en route procedures, vendor status changes, etc.).
    - Information on new hazards identified throughout the system through any safety assurance mechanism used by the organization.
    - Other aggregate information, that relates to the effectiveness of the organization's safety management efforts towards meeting its stated safety objectives.

NOTE: Meeting minutes from accountable executive reviews are convenient recording locations for revalidation or edits to the organization's safety policy. This record is sufficient evidence of a "signed safety policy," which is required to be communicated throughout the organization.

Validation Repeatability: This validation need only be conducted once and as one of the final CMT validation process activities. However, this final test must be conducted with the SMSPO. It is important that the certificate holder has completed full SMS implementation, so it can define what system reports are appropriate for the management review process(es). Finally, the accountable executive must take appropriate action to address any substandard safety performance. This validation may be repeated if the certificate holder does not follow its defined process and the minimum data/information detailed above was not included during the CMT validation assessment.

NOTE: It is often difficult to identify directed actions resulting from meeting minutes unless a template is used to list defined actions to be carried forward to the next management review. Using this technique removes the "guess work" associated with deciphering discussions contained in meeting minutes.

Certificate holder use of a template or "actions table" for the meeting minutes is strongly encouraged.

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Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Designate an accountable executive who is involved in the system-wide safety management efforts. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder accountable executive has adequate knowledge and plays an active role in directing actions relevant to resolving safety performance deficiencies in the system.

Data Collection Tool Questions – Record of Results:

		YES	NO
1	Does the certificate holder have documentation showing that the accountable executive is periodically reviewing and assessing the organization's safety management performance? Ref: *SMSVP Standard 03-09-2015, 5.25(b)(5), 5.73*		
2	Does the certificate holder have documentation showing that the accountable executive directs actions to address substandard safety performance? Ref: *SMSVP Standard 03-09-2015, 5.25(b)(5)*		
3	Does the certificate holder have documentation showing the directives of the accountable executive are tracked and reported upon at the next regular review or as required? Ref: *SMSVP Standard 03-09-2015, 5.25(b), 5.73, 5.97*		

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Figure 17-4-3Q. SMS Records Retention Process Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Policy, Safety Risk Management and Safety Assurance	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) will validate, to the extent necessary, that the organization has record retention capability conforming to the SMSVP Standard in either paper or electronic media. The ability of the organization to retrieve archived records shall be tested.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related- duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder is required to maintain records demonstrating conformance with applicable SMSVP standards and provide historical reference documents for ongoing decisionmaking.

The CMT must ensure that the certificate holder is capable of storing data for the required time periods defined in the SMSVP Standard and those required to retrieve stored data can do so in a "timely" manner. For paper records, access, protection from damage and misfiling are components of a good process. For electronic records, access, backup and protection from loss or overwrite are components of a good process. The CMT should test the certificate holder's record systems by requesting evidence that stored historical data matches the maximum retention period requirement.

For example: If today's date is 12/01/13 and there is a 24-month retention requirement, the certificate holder should be able to produce records from 12/01/11. If today's date is 12/01/18 and the retention requirement is unlimited, then records must be accessible back to the initial date of creation.

NOTE: If there is no "master record tracking document" defining the initial inception date of record, there is no standard to measure the historical completeness of a given record.

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It is difficult to determine if something is missing from recorded history if one does not know what is supposed to be in the historic file in the first place. Therefore, the CMT must always identify the evaluation standard it will use to test the records retention system before examining individual records or files.

Example: For personnel records, the CMT should pick individuals from actual surveillance activities to determine required training from the sample. Since training records are required to be retained as long as the individual is employed, ask the management representative for employee records of individuals who are working in the process area. If employees have SMS training modules in their job description, this should be documented in a training matrix detailing the requirement and process area. The CMT, for process procedure records, should identify a specific process for assessment with a revisions log or document history. The CMT evaluator should then check the archived documents by composition or approval date to validate the document retention requirement.

Criteria:

- "Unlimited" record retention requirement: records of SRM outputs for as long as the control remains relevant to the operation (i.e., each revision level of a process procedure should have SRM records from the date of original SMS acceptance). Employee competencies and training records must be retained as long as the individual is employed.
- Five-year record retention requirement: Safety Assurance outputs (e.g., investigations, audits, corrective and preventive action, continuous process monitoring records (whether by day, week, or month) and employee hazard reports).
- Twenty-four-month record retention requirement: Safety communications, (e.g., the "why" documentation that includes bulletins, training records/curricula, records of corrective or preventive actions that require retraining of employees, meeting or briefing notes where "why" is explained, checklists of items reviewed at production meetings, etc.).

  NOTE: While it is commendable that a certificate holder can control its documents in an orderly fashion, if records are not being used for their intended purpose, then the records retention process is just a compliance drill. To prevent this, the CMT should ensure training records are periodically audited by the certificate holder to validate that its training process is working. When SRM is conducted, records from past SRM decisions should be reviewed as part of the analysis process.

Validation Repeatability: This validation is applicable to all process areas. In a large organization, the CMT may wish to select specific samples from process area subgroups and perform a one-time check; applying those samples to all record media used by that process group.

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If the organization is smaller, management often requires its individual process owners to maintain records applicable to their area/department. In these situations, the CMT may wish to perform multiple validations on process areas with several process owners.

Regardless of the certificate holder's size, it is important the CMT identify the records custodian(s) and perform enough validation activities to feel confident in the certificate holder's ability to meet the SMSVP records retention requirements.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement a record retention process to comply with all regulatory record requirements. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder has a record retention process that complies with all regulatory record requirements.

Data Collection Tool Questions – Record of Results:

		YES	NO
1	Did the certificate holder's personnel adequately demonstrate that they can retrieve required safety management records (both current and historical) as defined in their records process to include: • Safety risk management outputs as long as the control remains relevant to the operation (5.97(a)); • Five-year record retention requirement for the outputs of its safety assurance processes (5.97(b)); • Record of training for each individual to be retained for as long as they are employed by the certificate holder (5.97(c)); and • Twenty-four calendar-month record retention requirement for safety communications (5.97(d))? Ref: *SMSVP Standard 03-09-2015, 5.97*		

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Figure 17-4-3R. SMS Safety Communications Design Demonstration

Certificate Holder Designator:		Date:
Design Job Aid Reference – Safety Promotion	Process Area/Department Application:	

Performance Objective:
Certificate Management Teams (CMT) will validate, to the extent necessary, that the certificate holder has communicated safety information throughout its organization to ensure that employees are aware of their safety-related responsibilities, and other critical safety-related information.

Directions:
There are five basic subobjectives associated with design demonstration:

1) The certificate holder has applied its design requirements to system operations;

2) Certificate holder personnel have the competencies to perform their safety management-related duties and responsibilities (i.e., qualification, training, knowledge, and experience);

3) Process area/department personnel are appropriately applying the documented process procedures approved in their guidance documents;

4) The expected outputs of the process application are achieved; and

5) Gaps in the certificate holder's process design are identified during CMT validations.

The certificate holder is required to communicate safety-related information to its employees.

The SMSVP Standard identifies three communications requirements:

1) Communications between management and employees ensures awareness of their specific safety management duties and responsibilities (e.g., employee guidance documents, manuals, training records and curricula, bulletins, etc.).

2) Communications between management and employees resulting from identified hazard information that impacts specific employee groups (e.g., bulletins, production meetings, training records and curricula, etc.).

3) Communications explaining why safety actions were taken to include why the addition of new controls or imposed corrective actions were implemented to correct process nonconformance or negative trends.

When a new process or procedural control is implemented, the affected employees (revised procedure) need to know why the new control was implemented. In other words, employees affected by the change should understand the basic objectives of the new control. By communicating the "why" behind a change, employees are better able to help management reach the proposed objectives.

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NOTE: The intent of this requirement is reinforcing to the certificate holder that it cannot expect employees to support desired outcomes if they don't know what they are. Employees will often not remember the "why" when questioned about a changed process but should be aware they contribute to the overall safety of their organization. The CMT should also question the integrity of temporary mitigations before the mitigation is implemented. The CMT will have to sample enough employees to assess whether it believes the organization's communication method is effective and meets the intent of the SMSVP communications requirement.

Criteria:

- The organization's process must ensure that all employees throughout the organization are aware of the safety management system.
- The organization's process must ensure that any safety-critical information is conveyed to the appropriate lines of business.
- The organization must have a process that ensures that an explanation is communicated to employees on why particular safety actions are taken.
- The organization must have a process that ensures that an explanation is communicated to employees on why a safety procedure is introduced or changed.

Validation Repeatability: This validation is applicable to all process areas. The CMT may wish to select samples from process area subgroups in a large organization and perform a one-time check to access communication media used by the certificate holder. In a smaller organization all communication may be company-wide. Communications in a small, medium, or large organization may be in the form of newsletters, safety bulletins, training media, meetings, etc.

Regardless of the certificate holder's size, it is important that the CMT identify the processes used for communicating safety information and performs enough validation activities to feel confident in the organization's ability to meet the SMSVP communications requirement.

Organizational Manual Reference(s) Used for the Process Area Assessed in This Validation Test:

SUPPLEMENTAL INFORMATION
Purpose: (Certificate Holder Responsibility) Implement a process for communicating safety-critical information throughout its organization to ensure that employees are aware of their safety-related responsibilities. **Objective:** (FAA Responsibility) Confirm through design demonstration that the certificate holder communicates safety information throughout its organization to its employees, including their safety-related responsibilities, and other critical safety-related information.

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Data Collection Tool Questions – Record of Results: **YES** **NO**

1	Does the certificate holder demonstrate that, per 5.97(d): • Safety-critical information is communicated at all appropriate personnel levels (5.93(a) and (b)); and • Employees have received an explanation as to why particular company safety actions are taken (i.e., new or revised policies/procedures or changes that impact their working conditions) (5.93(c) and (d))? Note(s): The demonstration of employee awareness is assessed from employee interviews and documentation. Ref: *SMSVP Standard 03-09-2015, 5.93(a), (b), (c), and (d), 5.97(d)*		
2	Does the certificate holder's safety communication process explain to employees, safety policies, processes, procedures and actions relevant to their responsibilities? Note(s): The demonstration of employee awareness is assessed from employee interviews. Ref: *SMSVP Standard 03-09-2015, 5.93*		

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Figure 17-4-3S. Transitioning from SMS Pilot Project to the SMS Voluntary Program

SMS Pilot Project (SMSPP) and the SMS Voluntary Program (SMSVP). Since 2007, the SMSPP has provided the FAA and certificate holders significant experience and lessons learned for good safety management implementation strategies.

Establishing a permanent way for certificate holders to have their SMS integrated into day-to-day operations or recognized for international operations is a logical evolution of the SMSPP. For that reason, the Flight Standards Service National Field Office (AFS-900) has created the SMSVP. As a result, all current SMSPP participants are automatically in the SMSVP, unless required by regulation to establish an SMS. In those cases, certificate holders will follow issued regulations and referenced advisory materials.

While certificate holders are "automatically" entered into the SMSVP their SMS implementation efforts must correspond to the SMSVP structure. The Safety Management System Program Office (SMSPO) and certificate management teams (CMT) will use design validations to measure progress. The SMSPO and certificate holders' CMTs will work to ensure that progress is properly acknowledged and past work is not lost.

This figure describes the process that SMSPP participants will use to transition to the SMSVP. This process will be discontinued once all SMSPP participants have transitioned to the SMSVP. If a certificate holder does not wish to make this transition, they may withdraw from the SMSPP and any Flight Standards Service acknowledgement letters will be null and void.

1. Phase 1 – Certificate Holder's Implementation Transition: Certificate holders will revise their implementation plans to the SMSVP Standard (Figure 17-4-3A). It is recommended that the certificate holder and CMT become familiar with the SMSVP Standard to realize the few differences between the Advisory Circular (AC) 120-92A Framework and the SMSVP Standard (see Figure 17-4-3T). After familiarization, the SMSPO recommends that the certificate holder take the following steps to revise its implementation efforts:

a. The certificate holder should identify any new SMSVP expectations that are different from its original implementation plan conceived under AC 120-92A, Appendix 1.

b. The certificate holder should determine what changes or modifications/revisions will have to be implemented to meet the new expectations.

c. The status of each expectation should be annotated on a revised Implementation Plan. This may be as simple as adding a "status" column to the existing plan and annotating whether the expectation:

   i. Has been met;
   ii. Requires revision; or
   iii. Remains in progress (the expectation is still under initial development).

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d. All remaining work on the revised implementation plan should include:

   i. Any revised manual references;
   ii. The person responsible; and
   iii. Anticipated completion dates for documentation and full implementation. These dates will be used by the CMT to develop its validation plan for expectations still under development.

e. The certificate holder will re-submit its revised SMSVP Implementation Plan to the CMT, using the revision process formally agreed upon between the certificate holder and CMT.

   NOTE: While the certificate holder may develop its Implementation Plan in any form or manner it chooses, the plan must be acceptable to the CMT. Under the SMSVP, the plan must include dates that the certificate holder expects its documentation to be completed and target dates when documented requirements will be implemented into its system. The CMT will use these dates to develop its validation project plan required under the SMSVP (see Volume 17, Chapter 4, Section 2).

2. CMT Review and Acknowledging of the Certificate Holder's Revised Implementation Plan: While the certificate holder's revised plan will contain relatively few changes, the CMT verification activities will shift to design validations using the SMSVP validation tools. The following process steps will be used by the CMT to accomplish the transition:

a. The CMT will use the attached "Bridging Document" to familiarize themselves with the changes between the AC 120-92A Framework and the SMSVP Standard. The CMT shall ensure that the certificate holder has revised its plan to address the appropriate SMSVP Standard references and has made a status determination for each requirement on the revised plan.

b. The CMT will review the certificate holder's status claim and decide if:

   i. The expectation has been met;
   ii. The expectation requires revision; or
   iii. The expectation remains "in-progress" (still under initial development).

c. The CMT will provide the certificate holder written notification of any status disagreement and upon acceptable correction by the certificate holder, accept the revised plan as formal conversion to the SMSVP.

   NOTE: Although the SMSPO is the final authority on the SMSVP standards differences of opinion over revised plan suitability between the CMT and certificate holder may be referred to the SMS Regional Point of Contact (RPOC) for resolution. The CMT and/or RPOC may request assistance from the SMSPO to answer any technical questions, or request a meeting in facilitating the transition process.

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From the certificate holder's revised Implementation Plan, the CMT will develop its Validation Project Plan using the guidance contained in this chapter (see Volume 17, Chapter 4, Section 2, subparagraph 17-4-2-3E) and complete all remaining validation work in accordance with this document.

NOTE: The CMT may request assistance from the SMSPO to assist with development of the validation project plan.

3. PTRS Procedures. The person with "transition plan oversight" will open a PTRS to record CMT completion of the SMS transition from SMSPP to SMSVP activities:

i. Enter activity number 1045/3045/5045 as appropriate;
ii. Enter "SMSVPIPT" (SMS Implementation Plan Transition) in the "National Use" box; and
iii. Record any additional information in the Comments Section, as required.

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Figure 17-4-3T. Bridging Document Differences Between AC 120-92A and the SMSVP Standard

The following table lists the differences between Advisory Circular (AC) 120-92A, Appendix 1 Framework and the SMS Voluntary Program Standard.

The document is intended to assist CMT's transition from the SMS Pilot Project to the SMSVP expectations. It may also be used by a certificate holder to assist in documenting changed expectations in its SMS Implementation Plan.

Disclaimer: *FAA certificate holding offices are not obligated to accept or reject a certificate holder submission using this document. The SMSVP Standard is the primary reference to be used in the SMSVP.*

Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
If a certificate holder has implemented or is implementing an SMS using AC 120-92A, Appendix 1, these are the processes they have developed or are developing:	Title 14 CFR part 5 is the foundation document for the SMSVP Standard, but the Standard, not 14 CFR part 5, is how participants are evaluated:	As follows are the noted differences between AC 120-92A and the SMSVP Standard. It is important to the CMT to focus on the processes impact of the change to ensure conformance to the Standard. *Words in **bold** are key words to focus your review.*	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Component 1.0 Safety Policy and Objectives	SMSVP Standard 5.3(a)(1) and 5.21–5.27	• Ensure that the company designates an accountable executive and replaces the term "**Top Management**" with the term "**Accountable Executive**" in their manuals and documentation. [Wording and management concept change]	5.3 was updated to read as follows: (a) Any certificate holder required to have a Safety Management System under this Standard must submit the Safety Management System to the Administrator for acceptance. The SMS must be appropriate to the size, scope, and complexity of the certificate holder's operation and include at least the following components: (1) Safety policy in accordance with the requirements of subpart B of this Standard ~~part~~ (2) Safety risk management in accordance with the requirements of subpart C of this Standard ~~part~~; (3) Safety assurance in accordance with the requirements of subpart D of this Standard ~~part~~; and (4) Safety promotion in accordance with the requirements of subpart E of this Standard ~~part~~.
	5.5 Definitions		*Hazard* means a condition that could foreseeably cause or contribute to an aircraft accident as defined in 49 CFR 830.2.

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Element 1.1 Safety Policy	SMSVP Standard 5.21(a)(2) and 5.23	• Ensure that the company's Safety Policy contains a **commitment to fulfill** the organization's **safety objectives**. [Bold text not addressed in AC 120-92A]	Changed to require signature by accountable executive. ~~(b) The safety policy must be in accordance with all applicable regulatory requirements in Chapter I of Title 14 of the Code of Federal Regulations and must reflect the certificate holder's commitment to safety.~~ (b) The safety policy must be signed by the accountable executive described in 5.25. (c) The safety policy must be documented and communicated throughout the certificate holder's organization. (d) The safety policy must be regularly reviewed by the accountable executive to ensure it remains relevant and appropriate to the certificate holder.
Element 1.1(2)(e)	SMSVP Standard 5.21(a)(4)	• Ensure that the company's Safety Policy defines **requirements (replaces "encourages")** for employee reporting of safety hazards or issues. [Wording and process change. Review existing process to ensure conformance with the SMSVP Standard conformance.]	No change
Element 1.1(b)(2)(f)	SMSVP Standard 5.21(a)(5)	• Ensure that the company's safety policy defines **unacceptable behavior** and **conditions for disciplinary action**. [Change from AC 120-92A (Element 1.1b(2)(f)]	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Element 1.4	SMSVP Standard 5.21(a)(6)	• Ensure that the company's Safety Policy contains an emergency response plan which provides for the **safe transition** from normal to emergency operations in accordance with the requirements of 5.27. [Bold text not addressed in AC 120-92A]	No change
Element 1.1(2)(k)	SMSVP Standard 5.21(d)	• Ensure that the company's Safety Policy requires regular reviews by the **accountable executive** (replaces "**organization/company/etc**.") to ensure that it remains relevant and appropriate to the certificate holder. [Wording and process change]	No change
Element 1.2	SMSVP Standard 5.23(a)(2)	• Ensure that the company's Safety Policy defines **management's accountability** for safety for SMS processes **within their area of responsibility**, including, but not limited to: (i) **Hazard identification** and safety risk assessment. (ii) **Assuring the effectiveness of safety risk controls**. [Bold text not addressed in AC 120-92A]	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Element 1.2 Management Commitment and Safety Accountabilities	SMSVP Standard 5.23 and 5.25	• Ensure that the company has documentation that **identifies an accountable executive** who, irrespective of other functions, satisfies the following: **(1) Is the final authority over operations authorized to be conducted under the certificate(s).** **(2) Controls the financial resources required for the operations to be conducted under the certificate(s).** **(3) Controls the human resources required for the operations authorized to be conducted under the certificate(s).** **(4) Retains ultimate responsibility for the safety performance of the operations conducted under the certificate.** [Bold text not addressed in AC 120-92A]	No change
Element 1.2(3)(a)	SMSVP Standard 5.25(b)(2)	• Ensure that the company requires the **accountable executive** to accomplish the development (replaces the term "**define**") and sign the organization's Safety Policy. [Wording and process change]	No change
Element 1.2	SMSVP Standard 5.25(b)(5)	• Ensure that the company requires the **accountable executive** (replaces the term "**management**") to **assess the SMS performance**, to review the **safety performance** and direct actions to **address substandard performance**. [Wording and process change not addressed in AC 120-92A]	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Element 1.3 Key Safety Personnel	SMSVP Standard 5.25(c)	• Ensure that the company requires the **accountable executive** (replaces the term "**top management**") must designate **a management representative (replaces the term "a member of management")** who must be responsible for the following: [Wording and process change] **(1) Facilitating hazard identification and safety risk analysis; and** **(2) Monitoring the effectiveness of safety risk controls.** [Bold text not addressed in AC 120-92A]	Replaced management representative with management personnel and adjusted job responsibilities. (c) *Designation of management personnel*. The accountable executive must designate sufficient management personnel who, on behalf of the accountable executive, are responsible for the following: (1) Coordinate implementation, maintenance, and integration of the SMS throughout the certificate holder's organization. (2) Facilitate hazard identification and safety risk analysis. (3) Monitor the effectiveness of safety risk controls. (4) Ensure safety promotion throughout the certificate holder's organization as required in subpart E of this Standard. (5) Regularly report to the accountable executive on the performance of the SMS and on any need for improvement.
Element 1.4 Emergency Preparedness and Response	SMSVP Standard 5.27	• Where emergency procedures are necessary, the **accountable executive and management representative must develop as part of the Safety Policy of the certificate holder**, an emergency response plan that addresses at least the following: **(1)** Delegation of **emergency authority** throughout the organization; and **(2)** Assignment of **employee responsibilities during the emergency.** [Bold text not addressed in AC 120-92A]	Changed to the following: Where emergency response procedures are necessary, the certificate holder must develop and the accountable executive must approve as part of the safety policy, an emergency response plan that addresses at least the following:

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Element 1.5 SMS Documentation and Records	SMSVP Standard 5.95 and 5.97	• Ensure that the company requires the following **record retention times:** **(1) Outputs of SRM must be retained as long as controls are relevant;** **(2) Outputs of SA records must be retained for a minimum of 5 years;** **(3) Training records must be retained for a minimum of 24 consecutive calendar-months; and** **(4) Records of all communications provided under 5.93 for a minimum of 24 consecutive calendar-months.** [Bold text not addressed in AC 120-92A]	5.97(c) has been updated to read: (c) The certificate holder must maintain a record of all training provided under 5.91 for each individual. Such records must be retained for as long as the individual is employed by the certificate holder.
Component 2.0 Safety Risk Management (SRM)	Subpart C, Safety Risk Management, SMSVP Standard 5.3(a)(2), SMSVP Standard 5.51, 5.53, and 5.55	Intentionally left blank.	Deleted some language for clarification. A certificate holder must apply safety risk management to the following:
Element 2.1 Hazard Identification and Analysis	Intentionally left blank.	Intentionally left blank.	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Process 2.1.1 System Description and Task Analysis	SMSVP Standard 5.53(a) and (b), System Analysis and Hazard Identification	• Ensure that procedures are in place, when conducting the system analysis, to require consideration of: **(1) Function and purpose of the system.** **(2) The system's operating environment.** **(3) An outline of the system's processes and procedures.** **(4) The personnel, equipment, and facilities necessary for operation of the system.** [Bold text not addressed in AC 120-92A]	5.53(a) changed as follows: (a) When applying safety risk management, the certificate holder must analyze the systems identified in 5.51. Those system analyses must be used to identify hazards under paragraph (c) of this section, and in developing and implementing risk controls related to the system under 5.55(c).
Process 2.1.2 Identify Hazards	SMSVP Standard 5.53(c), System Analysis and Hazard Identification	No change noted.	No change
Element 2.2 Risk Assessment and Control	Intentionally left blank.	Intentionally left blank.	No change
Process 2.2.1 Analyze Safety Risk	SMSVP Standard 5.55(a), Safety Risk Assessment and Control	No change noted.	No change
Process 2.2.2 Assess Safety Risk	SMSVP Standard 5.55(b), Safety Risk Assessment and Control	The certificate holder **must define a process for conducting risk assessment** that allows for the determination of acceptable safety risk. [Bold text not addressed in AC 120-92A]	5.55(b) updated by deleting the following sentence: ~~"Acceptable safety risk must, at a minimum, comply with the applicable regulatory requirements set forth in Chapter I of Title 14 of the Code of Federal Regulations."~~

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Process 2.2.3 Control/Mitigate Safety Risk	SMSVP Standard 5.55(c), Safety Risk Assessment and Control	The certificate holder **must develop and maintain processes to develop safety risk controls** that are necessary as a result of the safety risk assessment process under paragraph (b) of this section. [Bold text not addressed in AC 120-92A]	Renumbered 5.55(c)(1) to 5.55(d). Deleted: ~~5.55(c)(2) The safety risk controls must, at a minimum, comply with the applicable regulatory requirements set forth in Chapter I of title 14 of the Code of Federal Regulations.~~
Component 3.0 Safety Assurance	Subpart D, Safety Assurance, SMSVP Standard 5.3(a)(3), 5.71, 5.73, and 5.75	Intentionally left blank.	No change
Element 3.1 Safety Performance Monitoring and Measurement	Intentionally left blank.	Intentionally left blank.	No change
Process 3.1.1 Continuous Monitoring	SMSVP Standard 5.71(a)(1) and (2), Safety Performance Monitoring and Measurement	• The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, the following: (1) Continuous monitoring of operational processes; and (2) **Periodic monitoring** of the **operational environment to detect changes.** [Bold text not addressed in AC 120-92A]	Changed 5.71(a)(1) and (2) to read as follows: (a) The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, the following: (1) ~~Continuous~~ Monitoring of operational processes. (2) ~~Continuous~~ Monitoring of the operational environment to detect changes.

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	SMSVP Standard Based on NPRM Part 5	Differences Between SMSPP Framework to SMSVP Standard	Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule
Process 3.1.2 Internal Audits by Operational Departments	SMSVP Standard 5.71(a)(3), Safety Performance Monitoring and Measurement	• The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, auditing of operational processes **and systems.** [The term "Systems" is not addressed in AC 120-92A in reference to this process. This is an optional wording change as there are no functional differences in the processes.]	No change
Process 3.1.3 Internal Evaluation	SMSVP Standard 5.71(a)(4), Safety Performance Monitoring and Measurement	• The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, evaluations of the SMS and operational processes **and systems.** [The term "Systems" is not addressed in AC 120-92A in reference to this process. This is an optional wording change as there are no functional differences in the processes.]	No change
Process 3.1.4 External Auditing of the SMS	SMSVP Standard 5.71(a)(3), Safety Performance Monitoring and Measurement	• There is no wording or functional change required with this process. This process is included in the SMSVP 5.71(a)(3). [Combining of processes]	No change

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Process 3.1.5 Investigation	SMSVP Standard 5.71(a)(5) and (6), Safety Performance Monitoring and Measurement	No change noted.	No change
Process 3.1.6 Employee Reporting and Feedback System	SMSVP Standard 5.71(a)(7), Safety Performance Monitoring and Measurement	• The term "**Employee Reporting and Feedback System,**" has been replaced with the term "**Confidential Employee Reporting System** [This is an optional wording change as there are no functional differences in the processes.] and • The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, the following: (7) A confidential employee reporting system in which employees can report **including, but not limited to hazards, issues, concerns, occurrences, incidents**, as well as propose solutions and safety improvements. [Bold text is not addressed in AC 120-92A with reference to the Employee Reporting System]	Changed 5.71(a)(7) to read as follows: ~~(7) A confidential employee reporting system in which employees can report, including, but not limited to: Hazards, issues, concerns, occurrences, incidents, as well as propose solutions and safety improvements~~ (7) A confidential employee reporting system in which employees can report hazards, issues, concerns, occurrences, incidents, as well as propose solutions and safety improvements.

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	**SMSVP Standard Based on NPRM Part 5**	**Differences Between SMSPP Framework to SMSVP Standard**	**Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule**
Process 3.1.7 Analysis of Data	SMSVP Standard 5.71(b), Safety Performance Monitoring and Measurement	• The certificate holder must develop and maintain processes and systems to acquire data with respect to its operations, products, and services to monitor the safety performance of the organization. These processes and systems must include, at a minimum, processes, the following: (8) The certificate holder must develop and maintain processes that analyze the data acquired through the processes and systems identified under paragraph (a) of this section and any other relevant data with respect to its operations, **products, and services.** [Bold text is not addressed in AC 120-92A. There is a requirement for this process in the AC but it only refers to "operations." Review existing process, if "operations" includes products and services, no change is required.]	No change
Process 3.1.8 System Assessment	SMSVP Standard 5.73(a)(1), Safety Performance Assessment	No change noted.	5.73(a)(1) has been changed to read: ~~(1) Ensure the certificate holder's compliance with the applicable regulatory requirements in Chapter I of title 14 of the Code of Federal Regulations and additional safety risk controls established by the certificate holder.~~ (1) Ensure compliance with the safety risk controls established by the certificate holder. 5.73(a)(5) has been changed to read: (5) Identify ~~potential~~ new hazards.

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	SMSVP Standard Based on NPRM Part 5	Differences Between SMSPP Framework to SMSVP Standard	Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule
Element 3.2 Management of Change	SMSVP Standard 5.73(a)(4), Safety Performance Assessment	• This process has been included with 5.73(a)(4). [Combining of processes]	No change
Element 3.3 Continuous Improvement	SMSVP Standard 5.75, Continuous Improvement	No change noted.	5.75 has been changed to read: The certificate holder must establish and implement processes to correct safety performance ~~substandard~~ deficiencies identified in the assessments conducted under 5.73.
Process 3.3.1 Preventive/ Corrective Action	SMSVP Standard 5.75, Continuous Improvement	No change noted.	No change
Process 3.3.2 Management Review	SMSVP Standard 5.73(a)(4), Safety Performance Assessment	This process has been included with § 5.73(a)(4). [Combining of processes]	No change
Component 4.0 Safety Promotion	Subpart E, Safety Promotion, SMSVP Standard 5.3(a)(4)	Intentionally left blank.	No change
Element 4.1 Competencies and Training	SMSVP Standard 5.91, Competencies and Training	No change noted.	5.91 has been changed by deleting the word qualifications and replacing with the word competencies. The certificate holder must provide training to each individual identified in 5.23 to ensure the individuals attain and maintain the ~~qualifications~~ competencies necessary to perform their duties relevant to the operation and performance of the SMS.

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Primary Reference to be Used in the SMSVP. SMSPP Process Based on AC 120-92A	SMSVP Standard Based on NPRM Part 5	Differences Between SMSPP Framework to SMSVP Standard	Redline Changes from Previous SMSVP Standard to Revised SMSVP Standard Based on Part 5 Final Rule
Process 4.1.1 Personnel Expectations (Competence)	SMSVP Standard 5.91, Competencies and Training	No change noted.	No change
Process 4.1.2 Training	SMSVP Standard 5.91, Competencies and Training	No change noted.	No change
Element 4.2 Communication and Awareness	**SMSVP Standard:** 5.21(d) The safety policy must be documented and communicated throughout the certificate holder organization. 5.25(b)(3) [the accountable executive will] Communicate the safety policy throughout the certificate holder's organization.	**AC 120-92A, Appendix 1** **Element 1.1b(2)(j)** Be communicated with visible management endorsement to all employees and responsible parties.	No change

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Figure 17-4-3U. Definitions

A. Causal Factors. Causal factors are that set of elements that affect an event's outcome. A causal factor is not necessarily a root cause, because whereas removing a causal factor can benefit an outcome, it does not with certainty prevent recurrence of an undesirable event. (See "root cause" and "root cause analysis".)

B. Corporate Safety Risk Management (SRM). As used in this document is a process to identify hazards and associated risks, analyze risks, and develop new risk controls affecting multiple process owner areas/departments within the organization. Final risk acceptance for Corporate SRM may be accomplished at a management level above the process owner/department level, or by a committee.

C. Corrective Action. A corrective action addresses a nonconformity that has occurred.

D. Conformance. Means agreement in nature or form of a presented document, process, or system.

E. Continued Operational Safety (COS). Routine recurring Performance Assessments (i.e., routine surveillance through safety inspections). Also includes certificate management, the management of major changes in operation (i.e., system configuration changes).

F. Design Demonstration. An activity that demonstrates, for purposes of validation, that a certificate holder's design of safety management processes function in an operational environment.

G. Design Review. Determines if a certificate holder's safety management processes conform to the Safety Management System Voluntary Program (SMSVP) Standard.

H. Gap Analysis. Compares existing processes, procedures, programs, and activities to the SMSVP Standard.

I. Hazard. Means a condition that can foreseeably cause or contribute to an aircraft accident as defined in Title 49 of the Code of Federal Regulations (49 CFR) part 830, § 830.2.

J. Preventive Action. A preventive action addresses the potential for a nonconformity to occur.

K. Risk. Means the composite of predicted severity and likelihood of the potential effect of a hazard.

L. Risk Control. A means to reduce or eliminate the effects of hazards.

M. Root Cause. The root cause of a nonconformity or undesirable event is that factor that would with certainty result in the event not occurring were it not present.

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N. Root Cause Analysis (RCA). A method for identifying the underlying causal factor of a nonconformity or undesirable event. A causal factor is considered the root cause if its removal from the event sequence prevents the undesirable event from recurring.

O. Root Cause Analysis Corrective Action Plan. A formalized plan to eliminate the causal factor that resulted in a nonconformity or undesirable event by addressing the factor determined to be the root cause.

P. Safety Assurance. Means processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Q. Safety Management System (SMS). Means the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk.

R. Safety Objective. Means a measurable goal or desirable outcome related to safety.

S. Safety Performance. Means realized or actual safety accomplishment relative to the organization’s safety objectives.

T. Safety Policy. Means the certificate holder's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees in regards to safety.

U. Safety Promotion. Means a combination of training and communication of safety information to support the implementation and operation of an SMS in an organization.

V. Safety Risk Management. Means a process within the SMS composed of describing the system, identifying the hazards, and analyzing, assessing and controlling safety risk.

W. System. Means a group of interacting, interrelated, or interdependent elements forming a complete whole.

X. Validation. CMT activities involving observations, audits, and certificate management functions that provide sufficient information for the CMT to assess whether a certificate holder’s system design achieves stated objectives and meets published SMS standards.

Y. Validation Plan. Means a forecast of resources needed to perform applicable assessments to confirm a certificate holder’s safety management activities and processes.

17-4-3-9 through 17-4-3-23 RESERVED.

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Appendix 14-2. Privacy Act Notice

NOTE: The Privacy Act Notice to be included with all email or written requests for information from individuals begins below. The following paragraphs provide background information on the relationship between the Privacy Act and the sharing of Compliance Action record information on individuals.

Background.

The Privacy Act requires agencies to publish notice in the Federal Register (FR) on what information is collected from individuals, how that information is stored in a system of records, and the routine and other uses for the collected information. Information from the Federal Aviation Administration's (FAA) system of records may be disclosed in accordance with the routine uses that appear in the System of Records Notice (SORN) published as the current edition of Department of Transportation (DOT)/FAA 847, Aviation Records on Individuals, available at https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices.

Relationship to Compliance Action Records.

The above SORN has not been updated to incorporate Compliance Philosophy (CP) or Compliance Action records. Because Compliance Action records are not listed in the SORN, they are not covered by the provisions for routine uses listed in the SORN. Therefore, Compliance Action record information identifiable to a specific individual cannot be shared routinely (with the National Transportation Safety Board (NTSB) or other government agencies, or in response to Freedom of Information Act (FOIA) requests) unless the individual grants permission for release of the information.

Complying with the Privacy Act and SORN.

Before sharing any personally identifiable Compliance Action record information outside the FAA, review this appendix with the appropriate FAA legal counsel, the Aviation Data Systems Branch (AFS-620), and/or Privacy Act specialist(s) to determine if the information can be shared, to make sure any needed release from the identified individual is obtained, if required, and to insure the disclosure of information complies with the Privacy Act and current SORN.

Questions and Additional Information.

Email questions to the Compliance Philosophy Focus Team at 9-avs-afs-cpft@faa.gov.

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Privacy Act Notice

This notice is provided in accordance with Section (e)(3) of the Privacy Act, 5 U.S.C. Section 552a(e)(3), and concerns the information requested in the correspondence or form with which this notice is enclosed.

A. *Authority: This information is solicited pursuant to 49 U.S.C. § 40113(a) and the regulations issued under that statutory provision codified in 14 CFR part 13, Investigative and Enforcement Procedures.*

B. *Principal purposes:*

1. The request for information is intended to provide you with an opportunity to participate in the investigation of an apparent deviation from the Federal Aviation Regulations, or pertinent statutes, standards, or procedures.

2. The requested information will be used to help determine the root cause(s) of the subject event, identify safety concerns, determine whether or not there has been a deviation from the Federal Aviation Regulations or pertinent statutes, standards, or procedures, and what, if any, action should be taken. The requested information will be used for safety risk assessment and risk mitigation, and for finding and fixing safety issues in the National Airspace System (NAS).

C. *Routine uses: Records from this system of records may be disclosed in accordance with the routine uses that appear in Department of Transportation (DOT)/FAA 847, Aviation Records on Individuals (current edition), available at https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices.*

D. *Effect of failure to respond: Submission of information is voluntary. The FAA cannot impose any penalties upon you if you choose not to respond to this information request. If you choose not to respond, however, the FAA will make determinations about possible action for this matter without the benefit of your comments.*

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Appendix 14-3. Compliance Action Communication/Correspondence Guidelines

General

Flight Standards Service (AFS) personnel must use critical thinking to determine the appropriate level of external communication/correspondence necessary for each situation. Work interdependently, keep your managers informed appropriately, and coordinate with the principal inspector (PI)/certificate-holding district office (CHDO) when applicable.

1. Verbal communication and written correspondence should set the right tone, be consistent with the actions being taken, and nurture and reinforce effective safety reporting from airmen/organizations. Make a good faith effort to understand the position of the individual/organization. Remember to communicate the agency's position in a timely manner.
   a. Be fair, reasonable, and just.
   b. Assume positive intent.
   c. Deviations must be identified, reported, and analyzed in a non-blaming manner.
   d. Focus on problem solving.
   e. Invite collaboration.
   f. Consider all circumstances relating to the facts and circumstances.

2. Cooperative and engaged participants who fix identified issues on the spot may only require verbal notification versus written correspondence from the Federal Aviation Administration (FAA).

3. Corrective actions that take time or are complex should be documented in writing.

4. Use plain language.

Required items

As described in Volume 14, Chapter 1, Section 2, the following information must be conveyed during verbal communication and/or written correspondence concerning a compliance action (CA) (except when there is repeated communication/correspondence with the same entity and the information below has already been conveyed):

1. Initial communication and/or correspondence:
   a. A statement that the event appears eligible (or may be eligible) for CA.
   b. A statement that enforcement action is not being pursued based on known information.

2. Completion of a CA: A statement that the event has been closed as a CA describing the type of action taken.

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Additional Considerations

The following lists information that may be included with CA communications and/or correspondence. This is not all-inclusive, and is not mandatory, as communication and/or correspondence needs to be tailored to the specific situation.

1. Refer external stakeholders to www.faa.gov/go/cp for more information.
2. For individuals, a copy of the Privacy Act Notice (see Appendix 14-2).
3. The Compliance Philosophy and Pilot's Bill of Rights Brochure (see Appendix 14-1).
4. A clear identification of the regulatory deviation(s).
5. A clear identification of any non-regulatory concerns/recommendations where improvements may be made or an opportunity exists to enhance best practices.
6. Description of completed corrective action(s).
7. An indication that the FAA expects corrective action to address the root cause(s) that led to the deviation.
8. A clear suspense date for agreed-upon actions.
9. When applicable, a description of planned AFS followup or additional surveillance.

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Appendix 14-4. Compliance Action Documentation Review Job Aid

This aid is intended to consolidate the data reporting requirements found in Volume 14, Chapter 1, Section 2, and the Program Tracking and Reporting Subsystem (PTRS) Procedures Manual (PPM). It may be useful to aviation safety inspectors (ASI) in making quality records, and to Front Line Managers (FLM) and others performing later data quality reviews.

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	Required Documentation	Reference	Notes
1.0	Comments must include a documentation of the facts		
1.1	Who was involved with the deviation?	V14 C1 S2, para 14-1-2-7B, 14-1-2-9F1)	
1.2	What specific regulatory or statutory requirement was not met?	14-1-2-9F4)	
1.3	When did the deviation occur?	14-1-2-9F4)	
1.4	Where did the deviation occur?	14-1-2-9F4)	
1.5	Why did the deviation occur? What are the results of the Root Cause Analysis (RCA)? What were the identified hazards or ineffective risk controls, including behaviors, that led to the deviation?	14-1-2-7B, 14-1-2-9F4)	
1.6	What was done to communicate or transfer any nonregulatory concerns or potential risks?	14-1-2-7A1), C1)	
2.0	Document mitigations/corrective actions taken by the airman/organization		
2.1	Does the PTRS capture the controls, monitoring, and feedback required to mitigate risks and ensure compliance?	14-1-2-7D, 14-1-2-9F4)	
2.2	What were the mitigations/corrective actions taken by the airman/organization and the Federal Aviation Administration (FAA)?	14-1-2-7C, 14-1-2-9F4)	
2.3	How was the problem corrected?	14-1-2-7D, 14-1-2-9F4)	
2.4	Is there sufficient information for future review of what the problem was and how it was fixed?	14-1-2-9F4)	
3.0	Record of deviation in PTRS and Multiple Records Requirement		
3.1	If possible, was a PTRS triggered from the primary PTRS surveillance activity? If so, was the triggered record entered in the parent PTRS?	14-1-2-9D	
3.2	Was the appropriate PTRS activity code selected?	14-1-2-9E	
3.3	Within the parent activity PTRS, was keyword “907” and “I” entered into the opinion code and does that comment contain the triggered PTRS transmittal ID?	14-1-2-9D	
3.4	Are nonregulatory concerns coded “911”, with an opinion code “I”?	14-1-2-9B	
3.5	Is the date of occurrence entered in the comments if different from the start date?	PPM, page 4-7, Start Date	
4.0	Remedial Training (RT)		
4.1	Was the Compliance Action (CA) PTRS kept open until the RT was completed?	14-1-2-9F4)h)	
4.2	Was the PTRS transmittal ID provided to the FAA Safety Team (FAASTeam) Program Manager (FPM) to ensure PTRS records are linked?	V15 C6 S1, para 15-6-1-11C3)b)	
5.0	Safety Assurance System (SAS) Instructions		
5.1	Has the CA PTRS been recorded in the Action Item Tracking Tool (AITT) when used to support the “Other” action choice?	14-1-2-9G; V10 C6 S2, Table 10-6-2A	
5.2	Does the SAS entry contain the appropriate format for recording the CA PTRS?	14-1-2-9G	
6.0	Trigger followup surveillance activities (only when needed)		
6.1	Did the airman/organization complete all corrective action(s) satisfactorily?	14-1-2-7E, 14-1-2-9H	
6.2	If the entity failed to complete an agreed-upon action, were the CA PTRS comments annotated, the CA PTRS terminated, and an Enforcement Action PTRS triggered?	14-1-2-9I	
6.3	If agreed-upon corrective actions fail to achieve their intended purpose, were additional corrective actions documented in the PTRS comments?	14-1-2-9H	
6.4	When necessary, has the PTRS documented any followup inspection and been closed after confirming compliance?	14-1-2-9H	

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Appendix 14-5. Guidance for Review of Enforcement Cases Under the FAA's Compliance Philosophy

Cases received in the Office of the Chief Counsel (AGC) prior to September 3, 2015:

If one instance of noncompliance documented in the Enforcement Investigation Report (EIR) warrants a legal enforcement action, then all instances of noncompliance in the EIR will be addressed with legal enforcement action. For those cases *not requiring legal enforcement action*, AGC may recommend settlement through an administrative action. The following general steps apply:

1. AGC will consult with the Flight Standards Service (AFS) (and, when appropriate, the regulated entity) in the development of a corrective action plan (CAP) that would be appropriate in the settlement. A corrective action might include training, counseling and education, or improvements to procedures or training programs.

    a. The corrective action can also take into account actions already initiated or completed by the regulated entity.

2. For an *uninitiated case* (e.g., AGC has not issued a notice of proposed certificate action), AGC will contact the regulated entity with a standard letter explaining the Federal Aviation Administration (FAA) Compliance Philosophy (CP) and that the case might be settled without the need for a legal enforcement action.

    a. If no response is received with 10 days, AGC will likely proceed with the legal enforcement action.

    b. Note: For an initiated case (e.g., AGC has issued a notice of proposed certificate action), the attorney will not send the standard letter because the attorney previously made initial contact with the regulated individual or entity. For initiated cases, AGC, AFS, and the regulated individual or entity may discuss settlement under the CP through the informal conference.

3. For an *uninitiated case*, AGC will schedule a conference with the regulated entity and AFS personnel to discuss the CAP.

    a. AGC will normally schedule the conference 7–10 days after AGC receives the response described in step 2 above.

    b. It is expected that an agreement on the CAP will be reached within 14 days after AGC receives the response described in step 2 above.

4. For an *uninitiated case*, AGC will prepare the settlement agreement and contact the regulated entity.

5. For an *uninitiated case*, if the entity agrees to the settlement, the attorney will return the EIR (including the settlement agreement) to the AFS regional office. The AFS field/regional office will monitor completion of the CAP.

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a. AFS will inform AGC whether or not the terms of the CAP are met. If so, AFS will close the case with an administrative action via a Letter of Correction (LOC) as described in the current edition of FAA Order 2150.3B, FAA Compliance and Enforcement Program, chapter 5, subparagraph 4(b)(2). The LOC should state the corrective action taken by the regulated entity.

b. If the regulated individual or entity did not take corrective action to the satisfaction of the FAA, the FAA will initiate a legal enforcement action.

6. For an *initiated case* (e.g., AGC has issued a notice of proposed certificate action), AGC and AFS will coordinate to handle the case similarly to the process for uninitiated cases, described above, except that:

a. AGC will retain the EIR until AFS reports that corrective action has been completed to the satisfaction of the FAA. At that point, AGC will withdraw the notice of proposed certificate action (or the notice of proposed civil penalty, or the civil penalty letter, as the case may be) and will return the case to the program office to be closed with an administrative action via an LOC. The LOC is described in the current edition of Order 2150.3B, chapter 5, subparagraph 4(b)(2) and should state the corrective action taken by the regulated entity.

7. The following steps must be taken to properly document the action:

a. In the Enforcement Information System (EIS), change the recommended action code from the original recommended action to an administrative action. Action Code 38, Closed for Compliance Action, cannot be used.

b. In the Program Tracking and Reporting Subsystem (PTRS), change the activity code to reflect an administrative action. In the comments section, indicate that an administrative action through an LOC is being taken instead of a legal enforcement action, and provide pertinent information concerning the corrective action agreement.

c. Other PTRS codes can be used during this process as needed in order to document providing technical assistance to legal counsel, document additional surveillance to support monitoring of the Compliance Action (CA) plan, etc.

Cases received by AGC on or after September 3, 2015, but before October 1, 2015 (the FAA-wide implementation date for the CP):

AGC may return cases to AFS, when legal enforcement is not required under the current edition of Order 2150.3B, for reconsideration as a CA or administrative action, as appropriate. If AFS agrees to resolve the case through CA, the steps in paragraphs 8 through 12 below apply. If, however, an administrative action is appropriate, AFS will follow the steps in paragraph 7 above.

8. Change the PTRS activity code to reflect the CA taken.

a. In the comments section, indicate that a CA is being taken instead of enforcement action and provide any pertinent details needed to explain the decision.

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i. Additional comments that provide the information required by Volume 14, Chapter 1, Section 2, subparagraph 14-1-2-9E must be entered.

ii. Any comments previously entered for the enforcement action should be retained in the PTRS.

b. The EIR number should remain in the "EIR#" field within the PTRS.

i. This is critical to allow the PTRS record to be associated with the previous EIR file.

c. If the EIR PTRS record is no longer available in the Enhanced Flight Standards Automation System (eFSAS) for editing, the record can be restored by making a request to 9-amc-afs620-certinfo@faa.gov.

9. If the PTRS was originally triggered from a surveillance activity, then the surveillance activity PTRS comments must be annotated as described in Volume 14, Chapter 1, Section 2, subparagraph 14-1-2-9D1)b):

The ASI must manually enter tracking of triggered record(s) in the parent record. The activity number(s)/record ID(s) of the triggered record(s) should be entered in the comment section using the appropriate Primary Area, Keyword "907," and Opinion Code "I," per the PPM, Chapter 4, Recording PTRS Activities. Refer also to the PPM, Appendix B, How to Tie Records to Their Followups, for triggering and linking records.

10. In the EIS, the Recommended Action Code should be changed to "38" (Closed to Take Compliance Action).

11. AFS should contact the airman and proceed with the CA procedures described in Volume 14, Chapter 1, Section 2.

12. If in the future the CA needs to be terminated and enforcement action initiated (i.e., airman chooses not to participate, is unable to take effective corrective action, or new information/behavior makes CA inappropriate):

a. A new EIR PTRS record should be triggered from the CA PTRS record.

b. A new EIR number and record will need to be created within the EIS. The original CA EIR number should be entered into the related number field of the new EIR number in the EIS.

Cases where AFS personnel initiate an enforcement action and an EIS entry is generated, but it is later determined that CA is appropriate:

The determination to take CA in lieu of enforcement action may arise as the inspector gathers new information through review by office management or regional personnel, or through discussion between AFS and AGC personnel.

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13. AFS personnel should utilize the procedures in paragraphs 8 through 12 above to document the CA within the PTRS and address the entry created within the EIS.

14. There is no need for an office to make an entry in the EIS to take a CA. The procedures above are only used when an enforcement action was initiated and it is later determined that a CA will be taken.

Supporting information:

1. Order 2150.3B CHG 9 was signed on September 3, 2015. This revision contained changes to reflect the FAA's CP and included allowance for AFS to address regulatory noncompliance with CAs (below the level of administrative or legal enforcement action).

2. Order 2150.3B CHG 10 was signed on October 30, 2015. CHG 10 clarifies that FAA personnel are to evaluate regulatory noncompliance under CHG 9 (i.e., under the CP) as of the September 3, 2015, the effective date of CHG 9.

    a. AFS published updates to Volume 14 to align with the allowances provided in Order 2150.3B. These changes were effective October 1, 2015.

    b. If AGC had not yet received a case as of September 3, 2015, AFS evaluates that case under the updated policy in Volume 14. This is because Order 2150.3B CHG 9 became effective while AFS was investigating the apparent violation or processing the case. Such cases are eligible to be resolved through a CA (when the appropriate criteria are met).

    c. As new cases arise on and after September 3, 2015, aviation safety inspectors (ASI) will generally process those cases under the CP as described in Volume 14. AFS will refer the case to AGC only if the ASI determines that legal enforcement action is required under the current editions of Order 8900.1 and Order 2150.3B.

3. Order 2150.3B CHG 10 also clarifies that CHG 9 does not by its terms apply to regulatory noncompliance that was the subject of EIRs that were transferred to AGC for legal enforcement action before September 3, 2015. This means that if AGC received a case before September 3, 2015, the FAA is not obligated to resolve that case under the CP (e.g., by taking CA when the appropriate criteria in Order 8900.1 and Order 2150.3B CHG 9 are met). *Nonetheless, in the spirit of the new philosophy, FAA enforcement attorneys generally evaluate—under the CP—open cases in legal that AFS transferred before September 3, 2015.* For this subset of cases that AFS transferred to AGC before September 3, 2015 and that are currently open in AGC, enforcement attorneys will work with ASIs to determine whether the case, though initially referred to AGC for a legal enforcement action, can be resolved with administrative action.

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