VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 1 Background Information

3-676 APPLICABILITY. This chapter contains direction and guidance for issuance of operations specifications (OpSpecs) to Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 125, 129, 133, 135, and 145 certificate holders. For 14 CFR part 142 certificate holders, training specifications (TSpecs) policy guidance is located in Volume 3. Direction and guidance is also included for amending, canceling, suspending, or revoking the OpSpecs for parts 121, 125, 135, and 145 certificate holders. Information on the processing of part 129 foreign air carrier OpSpecs is contained in Volume 12, Chapter 2. The policy and guidance for 14 CFR part 91 subpart K (part 91K) fractional owners, management specifications (MSpecs), is integrated with the OpSpecs guidance. General guidance for the issuance of other automated authorizations from the Web-based Operations Safety System (WebOPSS) is contained in Section 2 of this chapter. WebOPSS also contains automated authorizations for part 91 operations (letters of authorization (LOA) and Letters of Deviation Authority (LODA)), and 14 CFR part 137 templates used for documenting required information.

> NOTE: Unless otherwise noted, the term "operator," when used in this chapter, applies to a General Aviation operator/company conducting part 91 operations; a program manager conducting part 91K fractional ownership operations; an air carrier certificate holder conducting part 121 or 135 operations; a certificate holder or a LODA holder conducting part 125 operations; a rotorcraft external-load certificate holder conducting part 133 operations; an agricultural aircraft operator conducting part 137 operations; and/or a foreign air carrier or foreign person conducting part 129 operations, as applicable. This chapter uses the singular term "operator" for simplicity; however, uses of the term "operator" do not necessarily apply to all operations.

3-677 HISTORY OF OPSPECS. The early U.S. Civil Air Regulations (CARs) did not provide for OpSpecs. A valid certificate or temporary permit was the principal Federal authorization for conducting any air commerce operations. In addition to the certificate or permit, each operator had to possess valid competency letters, or temporary letters, issued by the Secretary of Commerce. These letters, which contained information relating to the operator's services, routes, aircraft, maintenance, airmen, and weather procedures, were appended to and considered part of the operating certificate. For example, CAR part 61.01 required each air carrier to operate in compliance with the terms, conditions, specifications, limitations, or other provisions of its certificate or temporary permit which included the competency or temporary letters. In 1953, the Civil Aeronautics Board (CAB) revised the CARs to require that each operator apply for OpSpecs at the time of application for an air carrier certificate. Air carriers that existed at that time were issued OpSpecs to be used instead of the competency or temporary letters. These revised rules specified that the OpSpecs were not part of an air carrier certificate. However, Part 145, Repair Stations, does specify that the OpSpecs are a part of a Repair Station Certificate. In addition, Part 133, Rotorcraft External-Load Operations, does not specify that the OpSpecs are a part of the certificate.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3-678 CONCEPTUAL NEED FOR OPSPECS/MSPECS. Within the air transportation industry, there is a need to establish and administer safety standards to accommodate many variables. These variables include: a wide range of aircraft, varied operator capabilities, the various situations requiring different types of air transportation, and the continual, rapid changes in aviation technology. It is impractical to address these variables through the promulgation of safety regulations for each and every type of air transport situation and the varying degrees of operator capabilities. Also, it is impractical to address the rapidly changing aviation technology and environment through the regulatory process. Safety regulations would be extremely complex and unwieldy if all possible variations and situations were addressed by regulation. Instead, the safety standards established by regulation should usually have a broad application that allows varying acceptable methods of compliance. The OpSpecs provide an effective method for establishing safety standards that address a wide range of variables. In addition, OpSpecs can be adapted to a specific certificate holder or operator's class and size of aircraft and type and kinds of operations. OpSpecs can be tailored to suit an individual certificate holder or operator's needs. Only those authorizations, limitations, standards, and procedures that are applicable to a certificate holder or operator need to be included.

3-679 LEGAL BASIS FOR OPSPECS. Title 49 of the United States Code (49 U.S.C.) (formerly the Federal Aviation Act of 1958 (FA Act)), through the Secretary of Transportation, empowers the Federal Aviation Administration (FAA) to issue certificates to qualified air operators. Title 49 U.S.C. § 44701 requires each air carrier certificate to include the terms, conditions, and limitations reasonably necessary to ensure safety in air transportation. Included in FAA certificates issued to air operators conducting operations under parts 121, 125, 135, 142, and 145 is a stipulation that those operations must be conducted in accordance with the provisions and limitations specified in the OpSpecs. The regulations in 14 CFR part 119 require that the OpSpecs issued to parts 121, 125, and 135 certificate holders specify the authorizations, limitations, and certain procedures under which each type of operation must be conducted and under which each class and size of aircraft must be operated. Part 119 specifies in general terms the basic content of OpSpecs for each kind of operation. The regulations also state that a person engaged in operations governed by OpSpecs issued under part 121, 125, 135, 142, or 145 may not conduct those operations either without OpSpecs or in violation of the appropriate OpSpecs. These regulations also stipulate that the Administrator may add to or amend the OpSpecs whenever necessary to address particular situations. In addition, the rule provides for the suspension or cancellation of OpSpecs for cause. For example, the OpSpecs may be suspended if the operator fails to recognize the Administrator's right of inspection. The Administrator may direct the surrender of the OpSpecs for certain activities by the operator, such as failing to be adequately equipped or terminating operations. In the event the Administrator directs the operator to surrender its OpSpecs, the Notice of Surrender must also be filed with the Director, Office of Aviation Analysis (OAA), Department of Transportation (DOT). Part 91K, Fractional Ownership Operations, was published in FAA Docket No. FAA-2001-10047, 68 FR 54561, September 17, 2003, which established the legal basis for MSpecs. The above information also applies to MSpecs.

3-680 STANDARD OPSPECS/MSPECS/TSPECS/LOAs.

A. Standard Templates. Standard templates are developed by the Flight Standards Service. The process used for developing standard templates ensures appropriate coordination

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

with appropriate Flight Standards personnel and with other FAA services and offices that could be affected by air carrier operations and all other air operators. The process also ensures that before the standard templates are finalized, appropriate coordination is accomplished with affected industry groups. Since standard templates specify limitations, conditions, and other provisions which operators must comply with, coordination with industry is essential to a mutual and clear understanding of the effect they will have on industry. After appropriate coordination has been completed, drafts of the new standard paragraphs/templates, or revisions to existing paragraphs/templates are finalized and incorporated into WebOPSS.

B. Nonstandard Templates. Through the use of standard OpSpecs, MSpecs, or other authorizing templates, the FAA and industry are assured that air operators and certificate holders conducting comparable operations with comparable equipment are held to the same standards. Occasionally, a situation may occur in which it becomes necessary to issue a certificate holder or operator a paragraph/template that is nonstandard because of a unique situation not provided for in the standard paragraphs. In those cases when a nonstandard paragraph/template is more restrictive than the standard paragraph, justifiable reasons must exist, since the operator could be placed at a competitive disadvantage. See Volume 3, Chapter 18, Section 2 for the nonstandard OpSpec paragraph/template request process.

3-681 AVAILABILITY OF OPSPECS TO CREWMEMBERS AND OTHER EMPLOYEE PERSONNEL. Part 121, § 121.135; part 125, § 125.43; and part 135, § 135.23 provide that the applicable portions of the OpSpecs information be included in operator manuals or made available for the certificate holder's employees to be informed of the contents. Many operators meet this requirement by including a copy of the applicable parts of the OpSpecs in the appropriate sections of their manuals. However, the language used in OpSpecs is not designed to apply to particular situations, but is written to specify absolute minimum conditions or provisions for a broad range of issues and situations. The application of a particular OpSpecs authorization, limitation, and/or provision may not be readily apparent to a particular situation. As a result, OpSpecs, which are legal documents, are not easy to use or interpret during any particular operational situation. Part 119 requires the operator to insert pertinent excerpts from the OpSpecs in the General Operations Manual (GOM) for ready use by their crewmembers and other employee personnel. The OpSpecs information in an operator's manual should pertain only to that operator's type of operation and be written in a manner that is directly applicable to the certificate holder or operator's crewmembers and/or other employee personnel. The regulations also require that when OpSpecs information is incorporated into the operator's manual, the text will clearly identify each excerpt as part of the OpSpecs and state that compliance with each OpSpec is mandatory.

RESERVED. Paragraphs 3-682 through 3-700.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 6 Part A Operations Specifications—General

3-736 DISCUSSION. This section and Volume 3, Chapter 18, Sections 4 through 6 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 part 125 Letter of Deviation Authority (LODA) holders), 135, and 145.

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

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

C. Definition of Letters of Authorization (LOA). The standard paragraph for 14 CFR parts 61, 91, and 125 (including part 125 LODA holders) are called LOAs.

D. Other Source Documents. References are provided to other sections of this order, advisory circulars (AC), 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 WebOPSS 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 Flight Standards policy division. Parts 61, 91, 91K, 125 (including part 125 LODA holders), 133, and 137 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). Parts 121, 135, and 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from the International Program Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec/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 Flight Standards policy division. For detailed guidance on the process for obtaining 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. Table 3-4 is a summary of the information required in OpSpec/MSpec A001.

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

Type of Certificate:	Any of the Following May Apply:	Type of Carriage:	Title 14 CFR Reference:	Economic Authority Text to be Inserted:
Air Carrier	Domestic	Common	Part 119, § 119.21(a)(1) (Part 121)	and provided, at all times, the certificate holder has appropriate 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 appropriate written economic authority issued by the Department of Transportation.
Air Carrier	Supplemental	Common	§ 119.21(a)(3) (Part 121)	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.
Air Carrier	Commuter/ On-Demand	Common	§ 119.21(a)(4) and (5) (Part 135)	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Type of Certificate:	**Any of the Following May Apply:**	**Type of Carriage:**	**Title 14 CFR Reference:**	**Economic Authority Text to be Inserted:**
Air Carrier	On-Demand and On-Demand Cargo Only	Common	§ 119.21(a)(5) (Part 135)	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.
Operating	Commuter/ On-Demand Only Intrastate Operations are Authorized	Common	§ 119.21(a)(4) and (5) (Part 135)	limits its holding out to engage in air commerce.
Operating	On-Demand and On-Demand Cargo Only	Common	§ 119.21(a)(5) (Part 135)	limits its holding out to engage in air commerce.
Operating	Flight (Part 125)	Private Non-Common	§ 119.23(a) (Part 125)	None.
Operating	On-Demand	Private _____	§ 119.23(b) _____	no holding out allowed but compensated for contractual use only.
Operating	On-Demand	Non-Common	§ 119.23(b)	and provided the certificate holder does not hold out to carry persons or cargo for compensation or hire.
Air Carrier	Commuter/ On-Demand Rotorcraft	Common	§ 119.25(a) and (b)	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.
Air Carrier	On-Demand and On-Demand Cargo Only Rotorcraft	Common	§ 119.25(b)	and provided, at all times, the certificate holder has appropriate written economic authority issued by the Department of Transportation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Type of Certificate:	**Any of the Following May Apply:**	**Type of Carriage:**	**Title 14 CFR Reference:**	**Economic Authority Text to be Inserted:**
Operating	Commuter/ On-Demand Rotorcraft Only Intrastate Operations are Authorized	Common	§ 119.25(a) and (b)	limits its holding out to engage in air commerce.
Operating	On-Demand and On-Demand Cargo Only Rotorcraft Only Intrastate Operations are Authorized	Common	§ 119.25(b)	limits its holding out to engage in air commerce.
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 part 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 the Department of Transportation (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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 at (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.

NOTE: DBAs can apply to 14 CFR part 91K, but they do not have economic authority requirements.

C. Title 14 CFR 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,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

not 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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	Section 121.339(a)(2), (3), and (4)
Basic Part 135 Operator Commuter and On-Demand	A037	Sections 119.69(b), 135.21(a), and 135.341(a)
Basic Part 135 Operator On-Demand Operations Only	A038	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)
Operations Conducted Under Part 135 Without an Installed Radio Altimeter	A160	Section 135.160(b)
Extended-Range Operations with Two-Engine Airplanes	B042	Section 121.161(a)
Special Fuel Reserves in International (Flag) Operations	B043	Section 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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. A007 Templates. In the Web-based Operations Safety System (WebOPSS), the A007 template 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 A007 template is labeled specific to the WebOPSS 14 CFR database:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) Title 14 CFR parts 121, 125, 133, 135, and 145 databases: The A007 template is labeled an OpSpec.

2) Title 14 CFR part 142 database: The A007 template is labeled a TSpec.

3) Title 14 CFR part 91K database: The A007 template is labeled an MSpec.

4) Part 91 subpart J and part 125 (including part 125 Letter of Deviation Authority (LODA) holders) databases: The A007 template is labeled an 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 WebOPSS 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 the A007 template. 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 142) 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 142 training centers will not have a person designated to receive SAFOs or InFOs in the A007 template. Part 145 repair stations will have a person designated to receive InFOs in the A007 template. A reply message signifying receipt of the SAFO/InFO information by a designated person is not required. (Refer to the current editions of FAA Order 8000.87, Safety Alerts for Operators, and FAA Order 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 operators in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 websites. Accordingly, they have ratified that a recipient of SAFOs and InFOs must be identified in the A007 template 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 MSpecs 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. Refer to the current edition of Advisory Circular (AC) 00-58, Voluntary Disclosure Reporting Program, 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 or she is authorized to sign.

NOTE: Individuals' titles listed in the A007 template 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:

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 1500 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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:
>
> **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."

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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, 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 SEAT PROGRAM. Title 14 CFR part 121, § 121.585 and part 135, § 135.129 require an operator who permits a person to occupy an exit seat to have an FAA-approved Exit Seat Program. The final rules state in pertinent part, “The procedures required by paragraph (n) of this section will not become effective until final approval is granted by the Director, Flight Standards Service, Washington, DC. Current policy guidance ensures Exit Seat Program approval will be issued when the operator complies with the requirements in the regulation. OpSpec approval will be based solely upon the safety aspects of the certificate holder’s procedures.” When the FAA issues OpSpec A022, the operator has established procedures to ensure that seats with direct access to an exit are not occupied by passengers who are unlikely to be able to meet the regulatory requirements. An operator that operates an aircraft

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

with no designated exit seats for each passenger seating configuration in its fleet is considered to have no Exit Seat Program.

NOTE: Issuance of OpSpec paragraph A022 for 14 CFR part 91K is not required.

A. General. The FAA issues OpSpec A022 to authorize a certificate holder to use an FAA-approved Exit Seat Program. Principal operations inspectors (POI) must issue OpSpec A022 when a certificate holder's Exit Seat Program meets the requirements set forth in the regulation.

1) Part 121. Section 121.585 contains the requirements for exit seating that apply to a certificate holder that conducts part 121 operations.

2) Part 135. Section 135.129 contains the requirements for exit seating that apply to a certificate holder that conducts part 135 operations.

B. FAA-Approved Exit Seat Program—Parts 121 and 135. Each certificate holder operating aircraft with exit seating must have procedures that address the methods by which the certificate holder complies with regulatory requirements for exit seating. These procedures are commonly referred to as the certificate holder's Exit Seat Program. In accordance with §§ 121.585 and 135.129, the procedures associated with the Exit Seat Program are subject to FAA approval.

1) An operator's Exit Seat Program must meet regulatory requirements prior to receiving OpSpec A022. The assigned POI, in collaboration with an Aviation Safety Inspector–Cabin Safety (ASI-CS) if available, must verify that the certificate holder's Exit Seat Program meets the appropriate regulatory requirements.

2) For a certificate holder that operates multiple aircraft types or configurations, the Exit Seat Program must include a listing of each aircraft that is part of the program, along with any program differences applicable to each type. The program should also specify which aircraft, if any, do not have exit seats (i.e., no Exit Seat Program). A certificate holder may also have separate FAA-approved Exit Seat Program entries for each aircraft type it operates.

C. Populating OpSpec A022.

1) A022 for Part 121. To populate the OpSpec A022 template for part 121 operations (including parts 121/135), enter the name of the manual or manuals (if there are separate programs for each aircraft type) that contain the FAA-approved Exit Seat Program. If the program is simple enough to describe in one or two paragraphs, enter the description of the program itself.

2) A022 for Part 135. To populate the OpSpec A022 template for part 135 operations (including parts 121/135), enter the name of the manual or manuals (if there are separate programs for each aircraft type) that contain the FAA-approved Exit Seat Program. If the program is simple enough to describe in one or two paragraphs, enter the description of the program itself.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) A022 for Parts 121/135 Certificate Holders that Operate Aircraft Without Exit Seats. A certificate holder with an aircraft configuration with no designated exit seats for each passenger seating configuration in its fleet requires a statement in OpSpec A022. The certificate holder reviews the engineering diagram of the aircraft cabin interior or a List of Passenger Accommodations (LOPA) that includes, but is not limited to, locations of passenger and flight attendant (F/A) seats and exits. The certificate holder must compare the exit seating requirements to the aircraft configurations listed in the "Aircraft Listing" paragraph. If the certificate holder operates multiple aircraft types or passenger seating configurations, with and without exit seating, POIs must issue OpSpec A022, identifying the applicable aircraft configurations that do not have exit seating by stating "no exit seating" in the appropriate space in the template.

D. Exit Seating Special Approvals. There may be situations whereby an air carrier may conduct some operations entirely in a foreign country, which would need a special approval. Information on these special approvals can be found in Volume 3, Chapter 33, Section 6, subparagraph 3-3572P, Special Approvals, which describes the manner in which the air carrier will brief foreign-speaking passengers during wet lease operations.

E. Safety Assurance System (SAS) Assessment.

1) Certificate Holder Responsibility. Comply with OpSpec A022 and the FAA-approved Exit Seat Program.

2) FAA Responsibility. Determine if the certificate holder has complied with § 121.585 or § 135.129, as appropriate.

3) SAS Data Collection Tools (DCT) (current editions):

- ED 5.2.3 121A OP Exit Seating Program.
- ED 5.2.3 135B OP Exit Seating Program.
- EP 5.2.3 121A OP Exit Seating Program.
- EP 5.2.3 135B OP Exit Seating Program.

F. Additional Guidance (current editions):

- Volume 3, Chapter 33, Section 6, Paragraph 3-3572, Exit Seating Program.
- Advisory Circular (AC) 121-24, Passenger Safety Information Briefing and Briefing Cards.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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, 142, 145, and 147. A025 does not apply to 14 CFR parts 61, 63, 65, 91 (excluding part 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 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 chapters and sections of this order:

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 or crewmember qualification record) 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, or version 1A) in column 3 of Table 2.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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, or airworthiness release). 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, or version 1A) 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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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 will require the OpSpec A025 authorization for these items. Any electronic

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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: "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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

b) If a certificate holder is not authorized to use electronic signatures, select the subparagraph b that states the following: "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 or pilot qualification records). 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 or version 1.2).

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

F. 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 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 (POC) 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 POC 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: "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."

G. 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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."

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."

H. Instructions for Part 147—Recordkeeping System. Instructions for the part 147 A025 template are located in Volume 3, Chapter 18, Section 11. 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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- 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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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;

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

- 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)),

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 (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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- Frost, including hoarfrost (F).
- Freezing precipitation (snow, freezing rain, freezing drizzle, or hail, which could adhere to aircraft surfaces) (F).
- Freezing fog (F).
- 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,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- Flightcrew/groundcrew preflight check requirement,
- Deicing/anti-ice determination,
- Deicing/anti-ice location,
- Communication before deicing/anti-icing,
- 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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 INSTRUMENT FLIGHT RULES (SEIFR) PASSENGER-CARRYING OPERATIONS UNDER 14 CFR PART 135.

A. General. OpSpec A046 is issued to authorize SEIFR passenger-carrying operations under part 135. Additional maintenance requirements OpSpecs D101–104 must be issued, as applicable. The certificate holder must meet the conditions of part 135, § 135.163 and other appropriate sections to be issued the authority to operate under instrument flight rules (IFR) with passengers or a combination of passengers and cargo. OpSpec A046 provides the operational limitations and provisions necessary to operate under IFR while carrying passengers in a single-engine aircraft. OpSpec D103 contains the maintenance requirements for aircraft used in SEIFR operations and must be issued in conjunction with OpSpec A046. The principal operations inspector (POI), principal maintenance inspector (PMI), and principal avionics

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

inspector (PAI) must coordinate the issuance of OpSpecs A046 and D103 (by the authority of 14 CFR part 119, § 119.51(b)).

B. Aircraft Authorization. Once the certificate holder has met the requirements to conduct SEIFR operations, in addition to issuing OpSpec A046, the aircraft must be authorized on OpSpec A003 with the approved single-engine class of aircraft (e.g., Single-Engine Land (SEL), Single-Engine Sea (SES), and helicopter (HEL)), en route type (e.g., IFR/visual flight rules (VFR), IFR/VFR Cargo/VFR PAX), operation configuration (e.g., passenger, PAX and Cargo), and aircraft authorization (e.g., SEIFR PAX).

C. Requirement Differences Between 14 CFR Part 23, § 23.1353(h) and § 135.163(f). It is important to be aware of the differences between these two regulations. An aircraft certificated under part 23 does not automatically meet the requirements of part 135 for SEIFR passenger-carrying operations. See Volume 4, Chapter 16, Section 1, for further guidance.

OPSPEC/MSPEC A047. REPLACED BY OPSPEC A447.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:		

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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	

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

A. Applicability.

1) LOA A049 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 and A004 templates must be included in the operator's package.

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 Technical Support at AFS-WebOPSS@faa.gov.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 Flight Standards District Office (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, Registration and Record Location for the Antidrug and Alcohol Misuse Prevention Program Registration, 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 parts 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 apply to parts 121, 121/135, and/or 135 certificate holders that also conduct commercial air tour operations under § 91.147.

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 the Telephone Number field of Table 3 in LOA A049 as “A3,” followed by the part 121, 121/135,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

or 135 certificate number (see Figure 3-84, Sample A049 Table 3–Registration and Record Location for the Antidrug and Alcohol Misuse Prevention Program Registration).

Figure 3-84. Sample A049 Table 3–Registration and Record Location for the Antidrug and Alcohol Misuse Prevention Program Registration

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 OpSpec A449. 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 the principal operations inspector (POI), verify part 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.
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 Operators in the State of Hawaii) using LOA B548/OpSpec B048. 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 LOA B548/OpSpec 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 is required for national park operations and it is issued in addition to LOA A049. OpSpec/LOA B057 authorizes

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

an operator to conduct commercial air tour operations over national parks 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 6883). Final Rule 72 FR 6883 (published February 13, 2007 and became effective March 15, 2007) sets safety and oversight rules for a variety of sightseeing and commercial air tour flights with changes in 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 the preamble and final rule at https://www.federalregister.gov/d/07-580.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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)

OPSPEC/MSPEC/LOA A052. RESERVED.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

- 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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)

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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—ELECTRONIC FLIGHT BAG (EFB) PROGRAM.

A. Applicability. Paragraph A061 is an optional authorization available to all operators conducting aircraft operations under 14 CFR parts 91K, 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. A061 authorizes an operator's EFB program.

NOTE: Questions regarding the issuance of OpSpec/MSpec/LOA A061 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-267-8790 or the Air Transportation Division (AFS-200) at 202-267-8166.

B. General. FAA Flight Standards principal inspectors (PI) may authorize an operator's EFB program once the authorization process described in Volume 4, Chapter 15, Sections 1 and 2 is satisfied. The operator will maintain a program catalog, as described in the current edition of Advisory Circular (AC) 120-76, Authorization for Use of Electronic Flight Bags, that references EFB hardware (make and model) and EFB software applications used by crewmembers on each aircraft make, model, and series (M/M/S). An EFB program must have a process defined to ensure the catalog is current and readily available for PIs.

C. Instructions for Table 1, Aircraft Authorized Under an EFB Program. Table 1 within OpSpec/MSpec/LOA A061 must be completed to document aircraft M/M/S limited evaluations or temporary authorizations, as described in Volume 4, Chapter 15, Section 1, and be annotated in the "Remarks/Limitations" column.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-225. Sample A061 Table 1 – Aircraft Authorized Under an EFB Program

Aircraft M/M/S	Remarks/Limitations**
B737-300 EMB-120-QC A-300	*Limited evaluation of XXX EFB hardware. See ABC Flight Crew Bulletin XX-2017 for details.* *Temporary authorizations to conduct limited evaluation of XYZ EFB Application, Version 6.7 (see Flight Crew Bulletin ## - XX-XX-XXXX).*

Note: Enter "None" in the "Remarks/Limitations" column if there are currently no imposed restrictions, limitations, limited evaluations, or temporary authorizations.

D. PI Action.

1) PIs will provide technical and operational guidance to their certificate holders/program managers, when requested, to assist them in validating their selected EFB hardware devices and EFB software applications. Technical and operational guidance is located in the current edition of AC 120-76 and Volume 4, Chapter 15, Sections 1 and 2.

2) If the certificate holder/program manager has OpSpec/MSpec/LOA A025 issued for electronic recordkeeping, signatures, or electronic manual systems without the use of an EFB, it is not necessary to reissue that operator's OpSpec/MSpec/LOA A025. Electronic recordkeeping, signatures, or electronic manual system functions may co-reside on an EFB authorized for use in A061, and if so, OpSpec/MSpec/LOA A025 as well as OpSpec/MSpec/LOA A061 should be issued or amended, as applicable (e.g., the certificate holder must update OpSpec A025 when the operator utilizes recordkeeping, signatures, or electronic manual system functions to comply with part 121, §§ 121.631 and 121.663).

3) A certificate holder/program manager obtains OpSpec/MSpec/LOA A009 to authorize use of airport aeronautical data. If the certificate holder/program manager uses the same source(s) listed in OpSpec/MSpec/LOA A009 for airport aeronautical data on an EFB, it is not necessary to reissue that operator's OpSpec/MSpec/LOA A009. If aeronautical data on an EFB is not referenced in A009, then A009 should be amended to reflect the data source and distribution method.

4) A certificate holder/program manager obtains OpSpec/MSpec A010 to authorize use of specific sources for obtaining weather reports and forecasts for the purpose of controlling flight movements (operations). If the certificate holder/program manager uses the same source(s) listed in OpSpec/MSpec A010 for weather functions on an EFB, it is not necessary to reissue that operator's OpSpec/MSpec A010. Viewing weather and aeronautical information on an EFB requires additional authorization for use via OpSpec/MSpec A061. See Volume 3, Chapter 26, Section 5 for the authorization requirements.

E. Reporting System(s). The following tracking codes are used to document inspector activities during the evaluation of an EFB program.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) Program Tracking and Reporting Subsystem (PTRS) Input. Compliance with the requirements in A061 should be validated during routine inspections and in accordance with the authorization processes identified in Volume 4, Chapter 15, Section 1. Aviation safety inspectors (ASI) should use the following PTRS activity codes to record EFB-related oversight activities:

- Avionics: 5443.
- Cabin Safety: 1443.
- Operations: 1443.
- Maintenance: 3443.

NOTE: ASIs must use Google Chrome to download the PTRS Work Activity Pocket Guide from the FAA Enhanced Flight Standards Automation System (eFSAS) at https://employees.faa.gov/org/linebusiness/avs/it/portal/efsas/media/ELECTRONIC-WORK-ACTIVITY-GUIDE-TABLES.pdf.

2) Safety Assurance System (SAS). For parts 121 and 125 operations, the PI or ASI will utilize this guidance related to SAS Elements 1.2.2 (OP) Manual Management, 2.1.1 (OP) Training of Flight Crewmembers, 2.2.1 (OP) Airman Duties/Flight Deck Procedures, and 5.2.1 (OP) Crewmember Duties/Cabin Procedures.

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

A. General Guidance for A153.

1) ADS-B Description.

a) The ADS-B system consists of three elements:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 (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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

a) Type of aircraft (M/M/S);

b) Airplane registration number(s) and serial number(s);

c) Areas of intended operation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.)

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

5) For certification of ADS-B systems, contact Aircraft Certification Service (AIR-130) at 202-267-4613.

OPSPEC A160— ROTORCRAFT OPERATIONS WITHOUT AN INSTALLED RADIO ALTIMETER.

A. General. An operations specification (OpSpec) A160 Letter of Deviation Authority (LODA) is issued for 14 CFR part 135 rotorcraft operations without a radio altimeter (RA). This section describes the aviation safety inspector's (ASI) role in granting deviation authority to a part 135 certificate holder.

B. Background. In October 2010, the FAA published a Notice of Proposed Rulemaking (NPRM) (75 Federal Register (FR) 62639) that required commercial helicopter operators to install an operable FAA-approved RA in their rotorcraft. In February 2014, the FAA adopted the final rule as proposed (79 FR 9931), with compliance due by April 24, 2017, 3 years from the rule's effective date. The final rule states that a certificate holder must have an "FAA-approved radio altimeter, or an FAA-approved device that incorporates a radio altimeter." The FAA recognized that a limited number of smaller helicopters used in part 135 operations (e.g., Bell-47, Robinson R-22) may not have adequate room on the flight deck to install an RA, and included in the rule the ability for a certificate holder to obtain a deviation from the rule (part 135, § 135.160(b)). Deviation authority may not be warranted for helicopters in which an RA can be added to the flight deck's existing configuration. The FAA did note that a Helicopter Terrain Awareness and Warning System (HTAWS) or other devices, such as a multi-function display that incorporates an RA, would be permitted under this rule. Additionally, the certificate holder may not use information derived from a Global Positioning System (GPS) as a substitute for an RA.

C. Guidance. Principal operations inspectors (POI) may issue OpSpec A160 in accordance with the following guidance:

1) POIs should review the certificate holder's request to be authorized deviation authority from § 135.160 with the information in subparagraph C2 and C3, and provide the A160 authorization or denial within 60 calendar-days upon receipt of the request.

2) POIs should review the certificate holder's substantiating data that shows an RA will not fit on the flight deck without removing equipment required by regulation or that there is no room on board the aircraft for associated RA components. POIs should coordinate this review with the principal avionics inspector (PAI).

3) Additional consideration for deviation may be required for rotorcraft eligible for OpSpec A160 at the time of final rule publication but an RA solution has become available during the 3-year compliance period. In this case, those rotorcraft operators may be conditionally granted OpSpec A160 to give operators the benefit of a full 3-year compliance period. However, POIs must act to terminate OpSpec A160, according to the authority in 14 CFR § 135.160(b) and by following the procedure in 14 CFR part 119, § 119.51, on the date of return to service following an RA installation or October 24, 2018, whichever occurs sooner. The operator must provide evidence showing the date the RA solution became available.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

4) POIs are not required to coordinate A005 and A160 authorizations with their regional office or headquarters (HQ) policy divisions. However, contact information is provided below in case further assistance is needed.

5) Volume 3, Chapter 18, Section 6, OpSpec/MSpec D085, paragraph D allows for rotorcraft to remain on the D085 OpSpec while not operating in revenue service. Therefore, after April 24, 2017, a rotorcraft listed on an operator's D085 may operate under 14 CFR part 91 to conduct those maintenance, or alteration, activities necessary to conform the rotorcraft to § 135.160.

6) The PAI and principal maintenance inspector (PMI) are advised that the operator's OpSpec D085 may remain unchanged during the A160 OpSpec approval process. In the case where an approval process may extend beyond the April 24, 2017 compliance date, the rotorcraft may not operate under part 135. Continued operation of rotorcraft listed on the D085 under part 91 is allowed only if the certificate holder has FAA-accepted procedures specifying how its rotorcraft are operated while it shows compliance to § 135.160.

D. Action. POIs should review the guidance in subparagraph C and issue A160 to certificate holders as applicable. POIs granting this deviation will issue OpSpec A160 that will serve as the LODA. POIs will also list the deviation on OpSpec A005 and place "See OpSpec paragraph A160" in the Deviation Description block on OpSpec A005. ASIs will complete the Program Tracking and Reporting Subsystem (PTRS) with a code of 1865, GENRL TECH/PROCESS DEVIATIONS (BLANK); document the approval or denial for each aircraft; and enter "Rad/Alt" into the Nat'l Use block. Direct questions or comments concerning this policy to the FAA Flight Standards Service, Aircraft Maintenance Division (AFS-300) at 202-267-1675 or email the Helicopter Air Ambulance Focus Team (HAAFT) at 9-AWA-AVS-HAAFT@faa.gov.

1) Conditions for Denying the Deviation. POIs should be aware that this deviation authority only applies to rotorcraft with a maximum gross takeoff weight of 2,950 pounds or less. Requests for deviation from § 135.160 received for aircraft with a maximum gross takeoff weight greater than 2,950 pounds must be denied. In these cases, the certificate holder should petition for an exemption in accordance with 14 CFR part 11.

2) Conditions and Limitations. POIs should be aware of the following conditions and limitations applicable for part 135 certificate holders seeking OpSpec A160 authorization:

a) The certificate holder is not authorized to conduct night vision goggle (NVG) operations while conducting operations under this deviation authority.

b) For certificate holders with an approved pilot training program, the training program must contain training methods for recognizing and avoiding conditions conducive to whiteout, brownout, and flat-light conditions.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Deviations. Deviations to this policy must be processed in accordance with the procedure found in Volume 1, Chapter 1, Section 1, subparagraph 1-3A.

4) Termination or Amendment. The OpSpec A160 LODA may be terminated or amended at any time by the Administrator.

OPSPEC/TSPEC A304—FINAL APPROVAL OF AN AIRLINE TRANSPORT PILOT CERTIFICATION TRAINING PROGRAM.

A. General. A304 is issued by the principal operations inspector (POI) or the Training Center Program Manager (TCPM) after concurrence from the Air Transportation Division (AFS-200) to 14 CFR parts 121, 135, and 142 certificate holders, or from the General Aviation and Commercial Division (AFS-800) for 14 CFR part 141 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. 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

D. OpSpec Issuance. The issuance of and revisions to OpSpec A318 require headquarters (HQ) approval.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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. DECOMMISSIONED.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

(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.

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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

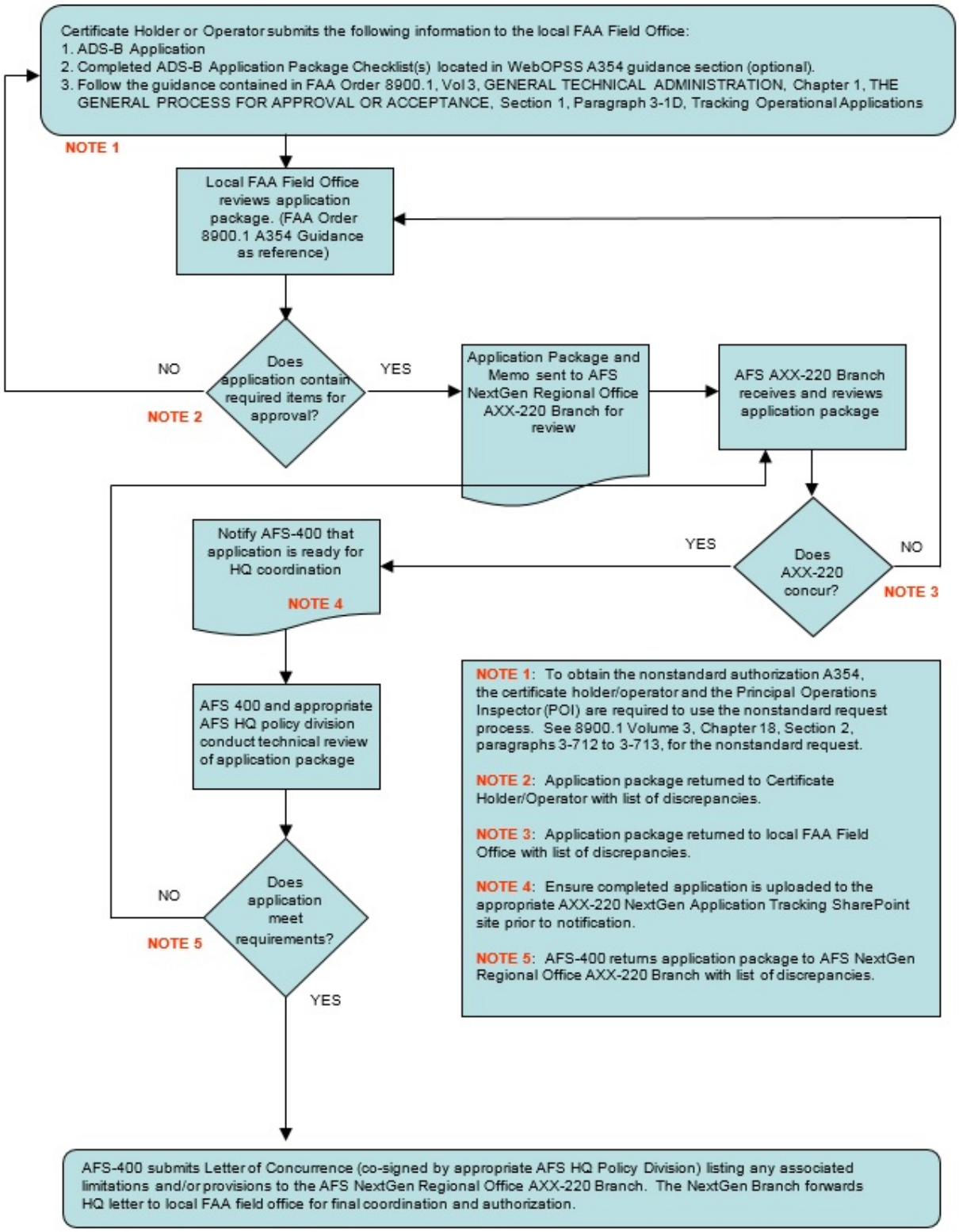
d) For continued airworthiness of ADS-B systems, contact the Aircraft Maintenance Division (AFS-300) at 202-385-6402.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-67C. A354 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart



UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

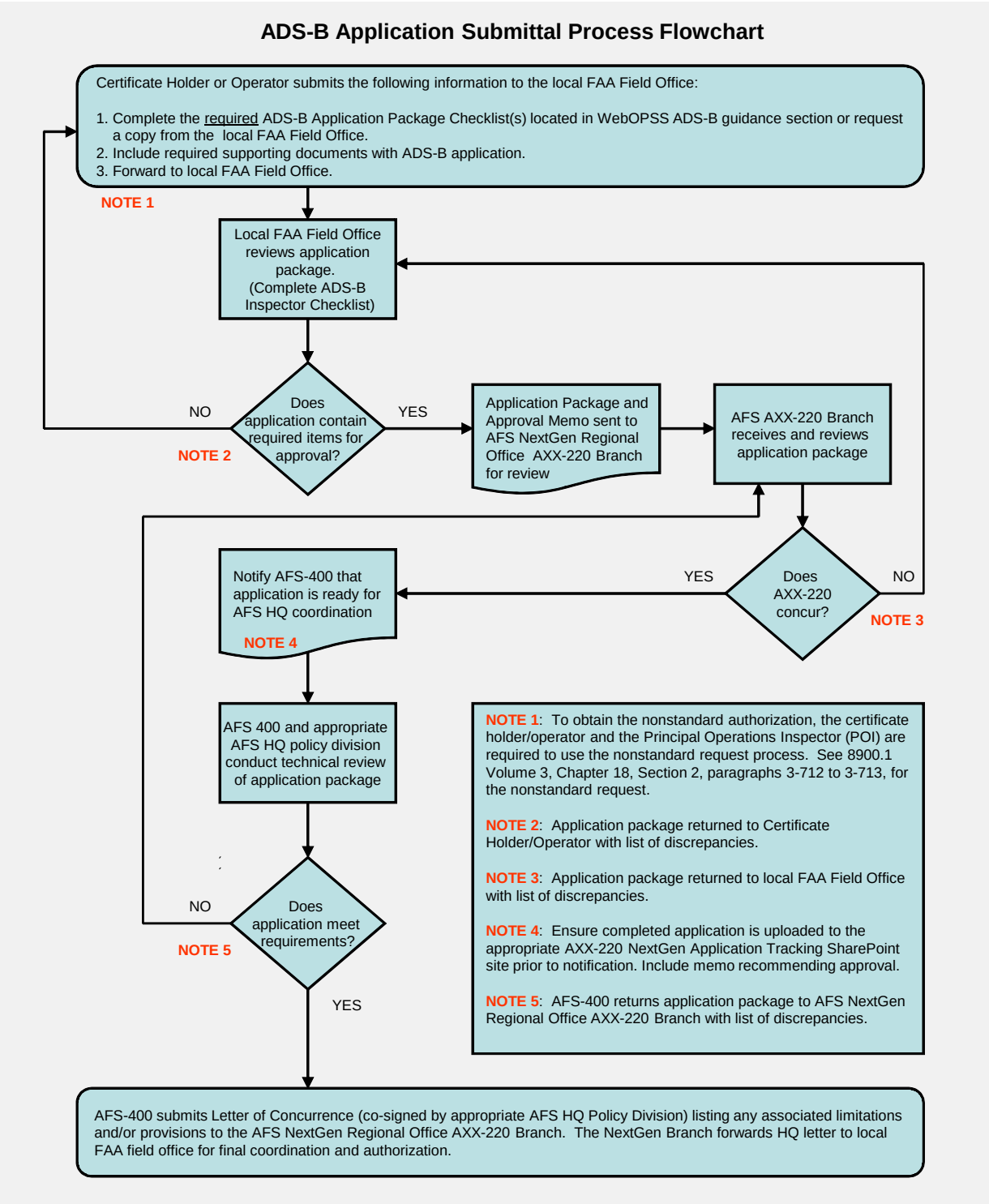
d) For continued airworthiness of ADS-B systems, contact the Aircraft Maintenance Division, Avionics Branch (AFS-360) at 202-385-6402.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-67B. A355 Automatic Dependent Surveillance-Broadcast (ADS-B) Application Submittal Process Flowchart



UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.)

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

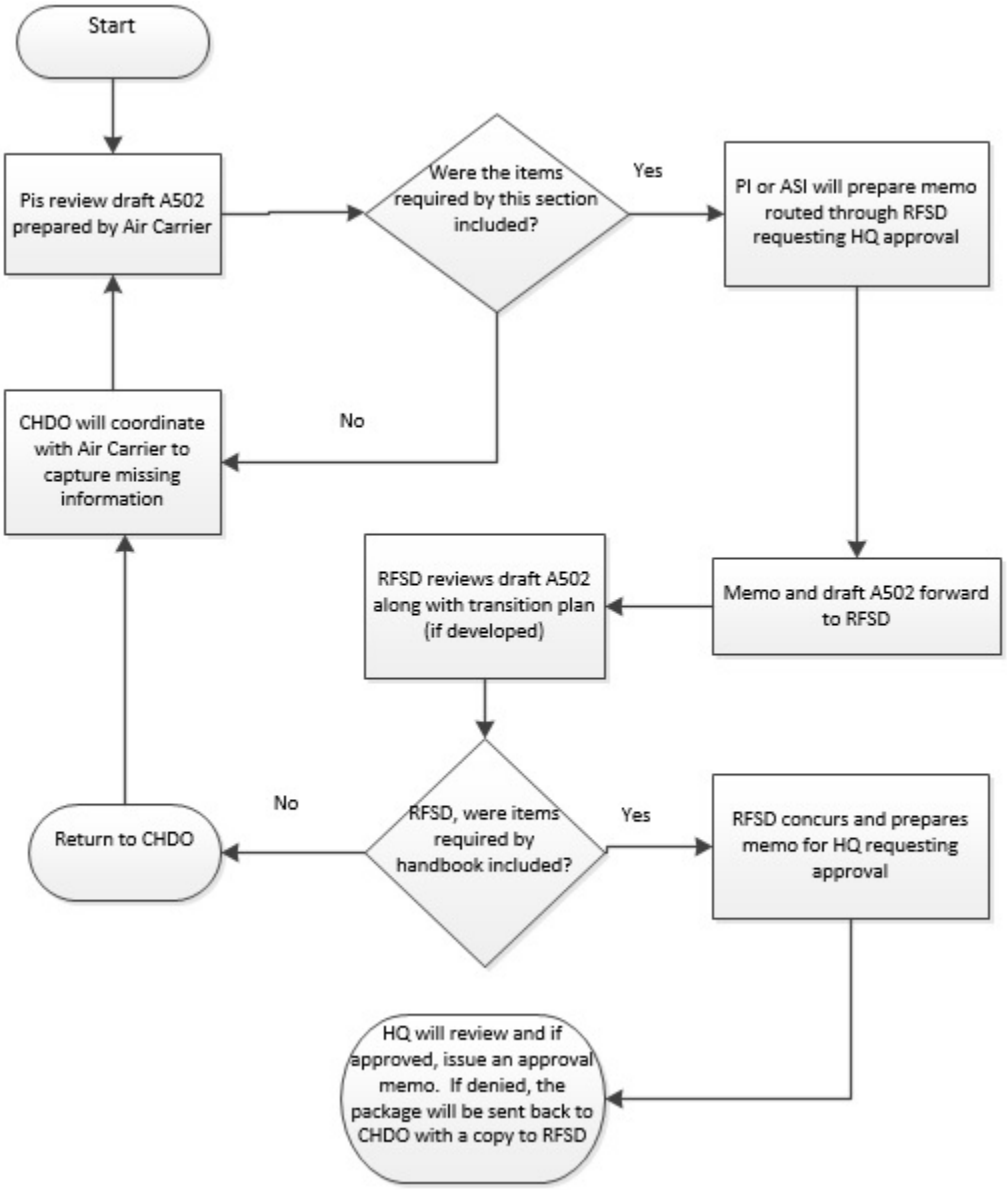
UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 by the principal operations inspector (POI) or the Training Center Program Manager (TCPM) after concurrence from the Air Transportation Division (AFS-200) to 14 CFR parts 121, 135, and 142 certificate holders, or from the General Aviation and Commercial Division (AFS-800) for 14 CFR part 141 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 or from AFS-800 for part 141 pilot schools. Based on the information provided in the program, complete the information required by the tables in the A504 template.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

purposes of A545, a single substitute scheduled operation on the behalf of another certificate holder may consist of more than one flight.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 4 Part B Operations Specifications—En Route Authorizations and Limitations

3-816 PART B OPERATIONS SPECIFICATIONS (OPSPECS).

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 Flight Standards policy division. Title 14 of the Code of Federal Regulations (14 CFR) parts 61, 91, 91 subpart K (part 91K), 125 (including part 125 Letter of Deviation Authority (LODA) holders), 133, and 137 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 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 the International Program Division (AFS-50), AFS-200, or AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from 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 headquarters (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.

NOTE: Applications for authorization of Next Generation (NextGen) Special Areas of Operations (SAO) OpSpecs which require FAA regional or headquarters (HQ) concurrence should be recorded and documented in the AFS-408 SAO Tracker on the AFS-408 SharePoint site (see Volume 3, Chapter 1, Section 1, subparagraph 3-4D for links to regional trackers). Instructions on the tracker's use, including guides on which OpSpecs require its use, are posted on the tracker.

NOTE: The following TSpecs designated with a "*" are for the part 142 database only.

***TSPEC B001—CORE CURRICULUMS.** TSpec B001 authorizes a training center to conduct training and/or testing required for airman certification or added ratings in accordance with 14 CFR parts 61 and 63. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B001 Job Aid contained in the Web-based Operations Safety System (WebOPSS) "Guidance" for proper completion of Table 1, Core Curriculums-Airplane, and Table 2, Core Curriculums-Rotorcraft.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

***TSPEC B002—SPECIALTY CURRICULUMS.** TSpec B002 authorizes a training center to conduct training and/or checking required for airman qualification in accordance with 14 CFR part 61. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B002 Job Aid contained in the Web-based Operations Safety System (WebOPSS) "Guidance" for proper completion of Table 1, Specialty Curriculums-Airplane, and Table 2, Specialty Curriculums-Rotorcraft.

***TSPEC B003—OTHER APPROVED COURSES.** TSpec B003 authorizes a training center to conduct training and/or checking required for crewmembers and personnel other than crewmembers to achieve competency required by the appropriate part of 14 CFR. More detailed information can be found in Volume 3, Chapter 54. Training Center Program Managers (TCPM) should refer to the B003 Job Aid contained in the Web-based Operations Safety System (WebOPSS) "Guidance" for proper completion of Table 1, Other Approved Courses.

OPSPEC B029—DRIFTDOWN OR FUEL DUMPING FOR CFR TERRAIN CLEARANCE REQUIREMENTS.

A. Purpose. OpSpec B029 is used to authorize driftdown or fuel dumping procedures used by the 14 CFR part 121 or 135 certificate holder to demonstrate compliance with 14 CFR terrain clearance requirements. The certificate holder uses the system described or referenced in the OpSpec for its approved driftdown or fuel dumping procedures, limitations, and data.

B. General Guidance. See Volume 4, Chapter 3, Section 5, paragraph 4-593 for more information.

OPSPEC B030—IFR NAVIGATION USING GPS/WAAS RNAV SYSTEMS.

A. Purpose. En route Area Navigation (RNAV) operations in the State of Alaska and its airspace on published air traffic routes using Technical Standard Order (TSO)-145a/C146a navigation systems as the only means of instrument flight rules (IFR) navigation appropriate for the route to be flown.

B. Wide Area Augmentation System (WAAS) Equipment. This OpSpec also authorizes TSO-C145a/C146a WAAS equipment to be used for IFR en route operations at special minimum en route altitudes (MEA) that are outside the operational service volume of ground-based Navigational Aid (NAVAID) if the aircraft operation meets the requirements of sections 3 and 4 of Special Federal Aviation Regulation (SFAR) 97.

C. Global Positioning System (GPS). The recent availability of TSO-C145a/C146a WAAS equipment constitutes a significant improvement in Global Positioning System (GPS) RNAV technology by the incorporation of WAAS, fault detection and exclusion (FDE), along with receiver autonomous integrity monitoring (RAIM). For a complete discussion of the equipment, refer to Volume 4, Chapter 1, Section 1, subparagraph 4-3D, GPS and WAAS Navigation, and Volume 4, Chapter 1, Section 2, paragraph 4-32, FAA Approval of GPS/WAAS.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

D. Web-Based Operations Safety System (WebOPSS). Principal operations inspectors (POI) can access OpSpec B030 in the WebOPSS. Required information must be entered to specify the applicable aircraft make, model, and serial number, WAAS manufacturer and model, and the equipment type and class (See Table 3-7, Wide Area Augmentation System Equipment Classes, below).

Table 3-7. Wide Area Augmentation System Equipment Classes

WAAS EQUIPMENT CLASSES					
TSO-C145a/C146a					
EQUIPMENT CLASS	Oceanic and Domestic En Route, Terminal Area Operations, Nonprecision Approach			LNAV/VNAV Approaches	LPV APPROACHES
WAAS Sensor [TSO-C145a]					
Class 1	yes			no	no
Class 2	yes			yes	no
Class 3	yes			yes	yes
WAAS Navigation Equipment [TSO-C146a] (note 1)					
Class 1	yes			no	no
Class 2	yes			yes	no
Class 3	yes			yes	yes
Class 4 (note 2)	no			no	yes

NOTE 1: WAAS sensor: While the Technical Standard Order (TSO)-C145a sensor supports the operations denoted, the integrated navigation system may not support all of these operations. Consult the Airplane Flight Manual (AFM), AFM supplement, pilot's guide, etc., for more information.

NOTE 2: Class 4 equipment will typically also be authorized under TSO-C145a Class 3. In that configuration, the WAAS equipment will support all phases of flight. The integrated navigation system may not support all of these operations (see NOTE 1).

E. Special Navigation Limitations and Provisions. WAAS equipment uses whatever GPS and WAAS satellites are in view and will provide the best available service. If the navigation service does not meet all of the requirements for the phase of flight, the equipment annunciates the "Loss of Integrity" or an RAIM indication. If all GPS guidance is lost, the

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

equipment will revert to dead reckoning and the flightcrew should take appropriate action (e.g., revert to alternate means of navigation, climb into ground NAVAID coverage, request radar services, proceed visually). Special navigation limitations and provisions are included in this OpSpec to ensure that flightcrews have been properly trained, tested, and qualified. Procedures must also be established for flightcrews and aircraft dispatchers (when applicable) to govern operation during periods of degraded navigation capability and/or satellite outages. Additional special conditions included in this paragraph require the certificate holder to use an approved program to predict navigation outages that impact WAAS equipment.

F. Independent Systems. Approval of this paragraph requires the aircraft to be equipped with two independent systems capable of supporting the operation. This may be met with:

- Dual TSO-C146a Class 1, 2 or 3 equipment, installed in accordance with the current edition of Advisory Circular (AC) 20-138, Airworthiness Approval of Positioning and Navigation Systems; or
- At least one flight management system (FMS) that complies with TSO-C115b and dual TSO-C145a Class 1, 2 or 3 receivers (installed in accordance with AC 20-138).

G. Navigation System. The navigation system must be fully operational or operated in accordance with an approved minimum equipment list (MEL). The approved navigation system may only be used to navigate along routes defined by fixes residing in the aircraft navigation system database.

OPSPEC/MSPEC B031—AREAS OF EN ROUTE OPERATION.

A. Operators. OpSpec B031 is issued to all 14 CFR part 91K, 121, 121/135, 135, and 125 operators (fixed-wing and/or rotorcraft).

1) Only the lead-in paragraph is issued to those part 135 operators who operate under visual flight rules (VFR) only. In the Web-based Operations Safety System (WebOPSS), you will be prompted to select the second radio button with the longer text.

2) All instrument flight rules (IFR) operators are issued the lead-in paragraph and subparagraphs a through f as prescribed below. In the WebOPSS, you will be prompted to select the second radio button with the longer text.

3) Select subparagraph g if the certificate holder is authorized to use Global Positioning System (GPS) navigation equipment for IFR Class I Navigation.

B. Specific Authorizations. The delimiting phrases, “if issued” or “if that paragraph is issued” is used in the subparagraphs that refer to other OpSpecs that give the specific authorizations (i.e., IFR in Class G Airspace, Class I Navigation, Class II Navigation). The principal operations inspector (POI) must complete these authorizations and coordinate them with principal maintenance inspectors (PMI).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. Subparagraph B(3). Subparagraph b(3), "Operate IFR flights including flights to alternate or diversionary airports in Class G Airspace in accordance with the provisions of paragraphs A014, C064, C080, H113, and/or H121, as applicable, of these OpSpecs, if issued" is a provisionary statement dependent upon the issuance of the other aforementioned OpSpecs for authorization to operate in Class G Airspace.

D. Subparagraph C. Subparagraph c reads, "Deviations from routings specified in this paragraph are authorized when necessary due to in-flight emergencies or to avoid potentially hazardous meteorological conditions."

E. Subparagraphs D, E, and F. Subparagraphs d, e, and f are to be selected for issuance only if they apply to the IFR operator.

1) Subparagraph d reads, "For operations within [U.S.] Class A Airspace, the certificate holder is authorized to conduct Class I Navigation under positive radar control with the Area Navigation (RNAV) or long-range navigation systems (LRNS) specified in OpSpec B035 of these OpSpecs if that paragraph is issued," according to the following guidelines:

a) OpSpec B035 must also be issued to authorize IFR Class I Navigation in U.S. Class A Airspace using RNAV systems, including LRNS.

b) Any one or all of the aircraft to be operated under the certificate must be capable of conducting part 121 or 135 operations in excess of flight level (FL) 180.

c) And the airplane(s) has LRNS installed.

d) OR the aircraft(s) has RNAV systems installed.

e) An air carrier must have an approved method of "off airway navigation" to depart from established airways. When this capability is lost, the carrier must return to the established airway.

2) Subparagraph e reads, "The certificate holder is authorized to conduct Class I Navigation, including en route IFR operations outside positive radar control, with the RNAV systems specified in OpSpec B034 of these OpSpecs, if that paragraph is issued," and is authorized according to the following guidelines:

a) OpSpec B034 must also be issued to all air carriers conducting Class I Navigation in U.S. and foreign operations who wish to proceed "direct" to a point or destination in or out of controlled airspace.

3) Any one or all of the aircraft to be operated under the certificate must be authorized IFR Class I Navigation using RNAV systems certified in accordance with the current edition of Advisory Circular (AC) 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

4) Subparagraph f reads, "The certificate holder is authorized to conduct Class II Navigation in accordance with OpSpecs B032 and B036 of these OpSpecs, if those paragraphs are issued."

a) Any one or all of the aircraft to be operated under the certificate must be authorized IFR Class II Navigation using approved LRNS (OpSpec B036 issued), in accordance with the current edition of AC 91-70, Oceanic and International Operations.

b) OpSpec B032, IFR En Route Limitations and Provisions, must be issued to all IFR operators; it does not apply if the operator is VFR only.

F. Subparagraph G. For en route authorization to use GPS for Class I IFR Navigation, if the existing aircraft avionics installation does include RNAV capability, subparagraph g would be selected, which reads, "The certificate holder is authorized to use approved GPS navigation equipment as a supplement to International Civil Aviation Organization (ICAO)-standard navigation equipment while conducting Class I Navigation."

G. OpSpec B050. OpSpec B050, Areas of Operations, must also be issued.

OPSPEC/MSPEC B032—EN ROUTE LIMITATIONS AND PROVISIONS. This paragraph is issued to operators who conduct any instrument flight rules (IFR) operations. The second sentence of the lead-in paragraph prohibits IFR operations outside of controlled airspace unless the operator is authorized to conduct such operations by appropriate OpSpecs. OpSpec B032, paragraph c, permits the operator to navigate outside the operational service volume of airways navigation facilities (Class II Navigation) without long-range navigation systems (LRNS). Some of the criteria that must be met when conducting Class II Navigation without LRNS are as follows:

- Navigation is predicated on International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) (Very high frequency Omnidirectional Range (VOR), VOR/distance measuring equipment (DME), and Nondirectional [radio] Beacon (NDB)); and
- Route of flight is a "great circle" route between the two NAVAIDs.

OPSPEC B033. RESERVED.

OPSPEC/MSPEC/LOA B034—IFR CLASS I TERMINAL AND EN ROUTE NAVIGATION USING RNAV SYSTEMS.

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. Authorization. B034 authorizes an operator to conduct instrument flight rules (IFR) Class I Navigation using an Area Navigation (RNAV) system, as applicable, in the areas authorized in OpSpec/MSpec/LOA B050.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: Questions regarding the issuance of B034 should be directed to the Flight Technologies and Procedures Division (AFS-400).

1) The RNAV system must meet the en route performance criteria prescribed by the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations. Refer to Volume 4, Chapter 1, Section 2.

2) A Global Positioning System (GPS) navigation system with Technical Standard Order (TSO) TSO-C129 (any revision) or TSO-C145 (any revision)/C146 (any revision) compliant GPS/wide area augmentation system (WAAS) RNAV systems (or later revisions that meet or exceed the performance requirements of this TSO/revision as approved by the Administrator) is authorized as International Civil Aviation Organization (ICAO) navigation equipment while conducting Class I Navigation. Additionally, new equipment certification not augmented by Satellite-based Augmentation System (SBAS) or Ground-Based Augmentation System (GBAS) and compliant with TSO-C196 (any revision) may be authorized as a supplement to ICAO navigation equipment while conducting Class I Navigation.

3) On routes or in areas where the capability exists to revert to conventional dual airborne Very high frequency Omnidirectional Range (VOR), VHF omni-directional range station/distance measuring equipment (VOR/DME), and/or Nondirectional [radio] Beacon (NDB) navigation systems, only a single RNAV system needs to be specified. If this capability is not available, dual or redundant (separate and independent) RNAV systems must be specified.

4) B034 permits the use of a fix obtained from a suitable RNAV system (authorized by B034) to substitute for a required ground-based Navigational Aid (NAVAID) fix when that NAVAID is temporarily out of service.

5) Authorization to fly Gulf of Mexico Q routes is via issuance of B034, and guidance for these routes is found in the current edition of Notices to Airmen Domestic/International, Part 3, Section 2, NOTAM RNAV Routes Q100, Q102, and Q105, at http://www.faa.gov/air_traffic/publications/notices.

B. Additional Authorization. B034 also authorizes an operator to conduct IFR operations in designated Basic Area Navigation (B-RNAV)/RNAV 5 and Precision Area Navigation (P-RNAV) airspace.

NOTE: In accordance with the terminology adopted in ICAO Doc. 9613, Performance-based Navigation (PBN) Manual, B-RNAV requirements are termed RNAV 5.

1) The route design determines whether the operation is terminal or en route navigation.

2) For B-RNAV/RNAV 5 terminal and en route operations, the navigation performance is ±5 nautical miles (NM) for 95 percent of the flight time.

3) For P-RNAV terminal and en route operations, the navigation performance is ±1 NM for 95 percent of the flight time.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

4) If the RNAV equipment is certified for P-RNAV, it may be authorized for both P-RNAV and B-RNAV/RNAV 5 terminal and en route operations.

NOTE: Authorization for B-RNAV/RNAV 5 terminal and en route operations does not automatically qualify the certificate holder/program manager/operator for Required Navigation Performance (RNP) 10 oceanic operations (RNAV 10). (See ICAO Doc. 9613, Part B, Implementation Guidance.)

5) The following documentation provides guidance material in regard to onboard RNAV equipment requirements and operational approval for operators of U.S.-registered civil aircraft:

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)/RNAV 5 and Precision Area Navigation (P-RNAV).

b) Regional Supplementary Procedures contained within ICAO Doc. 7030/4-EUR, Part 1, Rules of the Air, Air Traffic Service and Search and Rescue, require aircraft operating under IFR in designated European P-RNAV airspace to meet a ±1 NM 95-percent accuracy criteria. For B-RNAV/RNAV 5, the criteria requirement is ±5 NM 95-percent accuracy.

c) Functional and performance requirements are contained within ICAO Doc. 9613, Performance-Based Navigation (PBN) Manual and AC 90-96, appendix 1 (B-RNAV/RNAV 5) and appendix 2 (P-RNAV).

6) The following documentation should be evaluated by the principal inspectors (PI) for authorizing B-RNAV/RNAV 5 and/or P-RNAV:

a) Sections of the Airplane Flight Manual (AFM) that document the appropriate approval in accordance with AC 90-96, appendix 1 or appendix 2, as applicable.

b) Training and operations manuals that reflect the operating policies in AC 90-96.

C. Equipment Eligibility. If the operator is unable to determine B-RNAV/RNAV 5 or P-RNAV equipment eligibility from the AFM, the operator will ask the field office (certificate-holding district office (CHDO)/Flight Standards District Office (FSDO)/International Field Office (IFO)) to assess the RNAV equipment for B-RNAV/RNAV 5 or P-RNAV eligibility. The operator should provide the following, as applicable:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Table 3-8. Requirements for B-RNAV or P-RNAV Equipment Eligibility

B-RNAV/RNAV 5 (±5NM) Navigation Performance	P-RNAV (±1NM) Navigation Performance
RNAV system make, model and part number	RNAV system make, model and part number
Evidence of meeting ±5 NM accuracy, 95%	Evidence of meeting ±1 NM accuracy, 95%
Proof that the system meets the required functions for B-RNAV/RNAV 5 operations	Proof the system meets the required functions for P-RNAV operations
Crew operating procedures, bulletins	Crew operating procedures, bulletins
Any other pertinent information	Any other pertinent information

D. Determining Eligibility. If the field office is unable to determine equipment eligibility for B-RNAV/RNAV 5, it should forward the request and supporting data through the appropriate FAA regional divisions (AXX-220) to AFS-400 for review.

E. Aircraft Evaluation Group (AEG). If the field office is unable to determine equipment eligibility for P-RNAV, it should forward the request and supporting data through the appropriate FAA Flight Standards Service (AFS) regional division (AXX-220) to the appropriate AEG.

1) The AEG will verify that the aircraft and RNAV system meet the criteria for P-RNAV.

2) The AEG will provide written documentation (e.g., amended Flight Standardization Board (FSB) report or other official documentation) to verify the eligibility of that equipment.

3) The written documentation will identify any conditions or limitations necessary (e.g., navigation systems or procedures required, routes, areas, or procedures authorized) when conducting P-RNAV operations.

F. Appropriate Authorizations. The principal operations inspector (POI) shall coordinate with the principal avionics inspector (PAI) to obtain the proper nomenclature of the manufacturer and model and to ensure that the RNAV system is installed in accordance with approved data and meets the criteria of AC 90-45 and/or AC 90-96, as applicable. After the PIs determine that the operator is eligible and the navigation equipment is eligible for B-RNAV/RNAV 5 and/or P-RNAV operations based on the documentation provided by the operator, OpSpec/MSpec/LOA B034 may be issued indicating the appropriate authorizations.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) The aircraft (make/model) and the manufacturer and model of the RNAV systems authorized for this type of navigation must be listed in Table 1 of OpSpec/MSpec/LOA B034.

2) If B-RNAV/RNAV 5 (±5NM) and/or P-RNAV (±1NM) are authorized, these can be selected for insertion into column 4 of Table 1. If neither is authorized, select N/A.

NOTE: Many POIs put both B-RNAV and P-RNAV on same line. This is unnecessary since listing PRNAV covers both authorizations.

OPSPEC/MSPEC/LOA B035—CLASS I NAVIGATION IN U.S. CLASS A AIRSPACE USING AREA OR LONG-RANGE NAVIGATION SYSTEMS.

A. Purpose. The OpSpec/MSpec/LOA B035 template is used to authorize an operator to conduct Class I navigation within U.S. Class A airspace using an Area Navigation (RNAV) system or long-range navigation system (LRNS). This authorization is applicable to operators conducting operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. (For 14 CFR part 129, see Volume 12, Chapter 2, Section 4.)

B. Determining Eligibility. Operators and pilots should use the guidance in the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, to determine their eligibility for domestic U.S. RNAV Q-routes (RNAV 2). Additionally, refer to the current edition of 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, Appendix E. For the purpose of this authorization, “compliance” means meeting operational and functional performance criteria.

NOTE: Aircraft compliant with the current edition of AC 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System, may not be compliant with the criteria in AC 90-100.

1) Due to gaps in the distance measuring equipment (DME) infrastructure of the National Airspace System (NAS), Q-routes (RNAV 2) not labeled “GNSS REQUIRED” require Inertial Reference Unit (IRU) sensor inputs to augment DME/DME, which is often referred to as DME/DME/IRU.

2) The operator is responsible for providing equipment eligibility documented by the Airplane Flight Manual (AFM). If the operator is unable to determine that the aircraft is eligible, the operator must provide the following:

a) RNAV system make, model, and part number(s);

b) Evidence of compliance with AC 90-100 and AC 90-105 requirements;

c) Crew operating procedures;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Crew training program; and

e) Any other pertinent information.

3) Manufacturers should evaluate their systems against these criteria in AC 90-100, AC 90-105, and the current edition of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems.

4) If the CHDO is unable to determine equipment eligibility for RNAV routes and Required Navigation Performance 2 (RNP 2) domestic operations, the CHDO should contact the Performance-Based Flight Systems Branch (AFS-470) for guidance.

5) The principal avionics inspector (PAI) determines the proper nomenclature of the manufacturer's make/model/software version and that the RNAV and RNP systems are installed in accordance with approved data and meet the criteria of AC 90-100 and AC 90-105.

6) After the principal inspectors (PI) agree that the operator's navigation equipment, procedures, and flightcrew training are eligible for RNAV route operations, the B035 template may be issued, indicating the appropriate authorizations.

C. Bundling.

1) Bundling Qualifications. 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).

2) Bundling Advanced RNP (A-RNP), RNP 2, and RNAV 2. If an operator's aircraft are eligible (properly equipped) and its flightcrews are appropriately trained to conduct A-RNP, RNP 2, and RNAV 2, enter the aircraft make, model, and series (M/M/S), navigation equipment, and A-RNP, RNP 2, RNAV 2 in the "Navigation Specification(s)" column. The other bundling options are RNP 2 and RNAV 2 or RNAV 2 only.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-221. Sample B035 Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane Type (M/M/S)	Navigation Equipment			Navigation Specification(s)	Additional Capabilities	Limitations and Conditions
	Manufacturer	Model HW/ Part #	Software Part/ Version/ Revision #			
B-777-300ER	Honeywell Dual FMCF Honeywell ADIRU Rockwell Collins DME Rockwell Collins MMR	4089350 HG2060 822-0329 822-1152		A-RNP/RNP 2/ RNAV 2	FRT/TOAC	N/A
A-321-211	Thales Dual FMGC Honeywell ADIRU Rockwell Collins Thales MMR	C13043 HG1150 DME 700 TLS755		RNP 2/RNAV 2	TOAC	N/A
CL-604-604	Collins Dual FMC Collins GPS Litton IRU	6000 4000 101		RNAV 2		No Lateral Offset

D. A-RNP Authorization. In OpSpec B035, Table 1 specifies A-RNP capabilities the operator is authorized to conduct under instrument flight rules (IFR). In the Web-based automated Operational Safety System (WebOPSS), the principal operations inspector (POI) will select "Advanced RNP" if applicable. "Advanced RNP" is defined in the United States by the following three operational and functional capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, A-RNP operators must be able to meet the continuity requirements of a given operation.

E. Additional Capabilities. Additional capabilities are Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC), which may be selected in Table 1 under Additional Capabilities for those who qualify.

F. ACs. AC 90-105 provides guidance for RNP 2 operations. AC 90-100 provides guidance for terminal and en route RNAV operations.

G. Procedures. Procedures utilized under this approval should be outlined in the appropriate operations manual or outlined in OpSpec/MSpec/LOA A008, as applicable.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) RNAV routes designated as domestic Q-routes are being developed for areas throughout the NAS in accordance with AC 90-100.

2) RNP 2 domestic operations are in accordance with AC 90-105 and do not apply to RNP 2 oceanic and remote operations.

3) This guidance, OpSpec/MSpec/LOA B035 authorization, and AC 90-100 do not apply to RNAV routes designated as Q-routes in the Gulf of Mexico. (Refer to Notice to Airmen Publication (NTAP) for Gulf of Mexico information.)

H. RNP 2 Within the Continental United States (CONUS). The domestic RNP 2 specification is based upon a single Global Navigation Satellite System (GNSS) LRNS. Positioning data from other types of navigation sensors may be integrated with the GNSS data, provided they do not cause position errors exceeding the total system error (TSE) budget. Otherwise, means should be provided to deselect the other navigation sensor types. During operations in airspace or on routes designated as RNP 2, the lateral total system error must be within ±2 nautical miles (NM) for at least 95 percent of the total flight time. The along-track error must also be within ±2 NM for at least 95 percent of the total flight time. To satisfy the accuracy requirement, the 95 percent, Flight Technical Error (FTE) should not exceed 1 NM. The RNP system, or the RNP system and pilot in combination, must provide an alert if the accuracy requirement is not met or if the probability that the lateral TSE exceeds 2 × RNP (4 NM) is greater than 10-5 for RNP 2 operations.

I. RNAV Within the CONUS. Q-routes can be flown using a Global Positioning System (GPS) or DME/DME/IRU. In some cases, sufficient ground-based navigation sources are inadequate/unavailable to support DME/DME/IRU operations. When this occurs, the route must be annotated “GNSS REQUIRED.” Q-route procedures require that the aircraft’s track-keeping accuracy remain bounded by ± 2 NM for 95 percent of the total flight time. Unless the RNAV route specifically requires GPS or GNSS equipage, aircraft on the RNAV route must be within air traffic control (ATC) radar surveillance and communication (except for operations in Alaska).

J. RNAV Aircraft Equipped with Technical Standard Order (TSO)-C129, TSO-C145, or TSO-C146 on Q-Routes in Alaska. For Q-route operations in Alaska, the entire portion of the intended route of flight, using the RNAV systems or LRNS, must be under ATC radar surveillance and communication.

K. 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 with the criteria for P-RNAV operations in Europe, but there are exceptions.

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 to use P-RNAV in OpSpec/MSpec/LOA B034, that operator may also be eligible for RNAV routes without additional verification of equipment eligibility. POIs should still evaluate their operator’s procedures and training to ensure compliance with AC 90-100.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Appropriate P-RNAV references are current editions 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).
- Joint Aviation Authority (JAA) TGL-10, Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace.
- Volume 3, Chapter 18, Section 4 (see OpSpec/MSpec/LOA B034).

L. References (current editions):

- Part 91, §§ 91.123, 91.205, and 91.503.
- Part 95.
- Part 121, § 121.349.
- Part 125, § 125.203.
- Part 129, § 129.17.
- Part 135, § 135.165.
- FAA Order JO 7110.65, Air Traffic Control.

OPSPEC/MSPEC/LOA B036—OCEANIC AND REMOTE CONTINENTAL NAVIGATION USING MULTIPLE LONG-RANGE NAVIGATION SYSTEMS (M-LRNS).

NOTE: Next Generation Air Transportation System (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. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 4, and the current edition of Advisory Circular (AC) 91-70, Oceanic and Remote Continental Airspace Operations. Any questions in regard to application or interpretation of the guidance relative to OpSpec/MSpec/LOA B036 should be forwarded to your Regional NextGen Branch (RNGB) (AXX-220) Special Areas of Operation (SAO) specialist. (See guidance in Volume 4, Chapter 12, Section 1.)

B. Requirements. OpSpec/MSpec/LOA B036 is required before issuing the following OpSpecs:

- B037, Operations in Central East Pacific (CEP) Airspace;
- B038, North Pacific (NOPAC) Operations;
- B039, Operations in North Atlantic High Level Airspace;
- B040, Operations in Areas of Magnetic Unreliability; and
- B041, North Atlantic Operation (NAT/OPS) with Two-Engine Airplanes Under Part 121.

NOTE: Special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a Single Long-Range Navigation System (S-LRNS). Information can be found in the guidance for OpSpec B039.

C. Authorization. OpSpec B036 authorizes Oceanic and Remote Continental navigation when long-range navigation systems (LRNS) are required due to the inability to obtain a reliable fix at least once each hour from ICAO ground-based NAVAIDs. Oceanic and Remote Continental navigation using a Multiple Long-Range Navigation System (M-LRNS) is authorized in accordance with the limitations and provisions of OpSpec/MSpec/LOA B036 and, as applicable, 14 CFR part 91, §§ 91.511, 91.703, and 91.706; part 121, § 121.351; part 125, § 125.203; and part 135, § 135.165.

D. Required LRNS. In certain areas (e.g., High Offshore Airspace and some Caribbean flight information regions (FIR)), LRNS may also be required even though reliable fixes may be obtained more than once each hour. In these areas, traffic density and the navigation accuracy necessary for air traffic control (ATC) may require the use of LRNS.

1) Direction and guidance for authorizing Oceanic and Remote Continental navigation is in Volume 4, Chapter 1, Section 4.

2) When an operator applies for authorization to conduct Oceanic and Remote Continental navigation using LRNS, a validation test is required. (See Volume 3, Chapter 29, Section 8.)

3) OpSpec B036 prohibits Oceanic and Remote Continental navigation within Central East Pacific (CEP) Airspace (OpSpec B037), North Pacific (NOPAC) Airspace (OpSpec B038), operations within NAT HLA (OpSpec B039), and areas of magnetic unreliability (AMU) (OpSpec B040), unless operations in those areas are authorized by issuing the appropriate referenced paragraphs.

4) The aircraft (make, model, and series (M/M/S)) and the LRNS (manufacturer/model) authorized for Oceanic and Remote Continental navigation must be listed in OpSpec B036. Dual or redundant (separate and independent) LRNS must be indicated in the list. All navigation components that make up the M-LRNS must be listed on the OpSpec B036. For example, Inertial Reference Units (IRU), flight management computers (FMC), and Global Navigation Satellite Systems (GNSS) must all be listed in OpSpec B036, as one navigation component does not make for a complete M-LRNS required by this OpSpec. (See Figure 3-222, Sample B036 Table 1 – Authorized Airplane(s), Equipment.)

5) For S-LRNS operations, see the guidance for B054, Class II Navigation Using Single Long-Range Navigation System (S-LRNS).

E. Determining Aircraft Eligibility. Manufacturers should evaluate their systems against these criteria and document the Required Navigation Performance (RNP) capabilities as per guidance in the current editions of 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, and AC 20-138, Airworthiness Approval of Positioning and Navigation Systems.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-222. Sample B036 Table 1 – Authorized Airplane(s), Equipment

Airplane M/M/S	Long-Range Navigation Systems (LRNS)			Navigation Specification(s)	Additional Capabilities	Limitations	RNP Time Limits
	Manufacturer	Model HW, Part #	SW Part/ Ver. #				
B-787-800	Honeywell Dual FMCF Honeywell ADIRU Rockwell Collins DME Rockwell Collins MMR	4089350 HG2060 822-0329 822-1152		A-RNP/RNP 2/ RNP 4/RNP 10	FRT/TOAC		N/A
B-767-332	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/ GLU-925		RNP 2/RNP 4/ RNP 10	TOAC		12 hours with GPS inoperative
A-321-211	Thales Dual FMGC Honeywell ADIRU Rockwell Collins Thales MMR	C13043 HG1150 DME 700 TLS755		RNP 4/RNP 10	FRT	No Lateral Offset	6.2 hours with ADIRU only beginning when the ADIRU is selected from ALIGN to NAV. 5.9 hours with DME/DME updating beginning each time a DME update is received.
CL-604-604	Collins Dual FMC Collins GPS Litton IRU	6000 4000 101		RNP 10		No Lateral Offset	IRU w/GPS update = Unlimited IRU w/no update = 6.2 hours IRU w/DME update = 5.9 hours IRU w/VOR update = 5.7 hours

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

F. Bundling Concept. 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.)

1) In B036, Table 1, Authorized Airplane(s), Equipment, under the navigation specification column, bundling of Advanced RNP (A-RNP), RNP 2, RNP 4, and RNP 10 may be authorized for equipment that meets the necessary performance requirements for oceanic and remote operations. Lesser bundles are also available: RNP 2, RNP 4, and RNP 10; or RNP 4 and RNP 10; or RNP 10 only. As a minimum for A-RNP, the operator must be qualified for the following advanced capabilities: scalability, Radius to Fix (RF), and parallel offset. Additionally, the operator must have adequate continuity for oceanic and remote operations.

2) Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) may be selected in Table 1 under Additional Capabilities for those operators who qualify.

G. Operator's Oceanic/Remote Navigation Procedures. The principal operations inspector (POI), in consultation with the RNGB SAO specialist, should assess the operator's procedures for oceanic/remote navigation such that those procedures reflect the intent of the practices and procedures recommended in AC 91-70. Operators approved for operations using Global Positioning System (GPS) equipage and/or distance measuring equipment (DME)/DME automatic updating may omit the gross error check as noted in AC 91-70 if these systems are confirmed to be functioning normally (no fault indications). For all other aircraft, the aircraft position must be accurately fixed using airways navigation facilities or ATC radar.

1) Operators using RNP 10, RNP 4, or RNP 2 airspace must be authorized in accordance with the requirements set forth in AC 90-105. This document addresses GNSS as primary navigation and the requirement for multisensor systems integrating GNSS with receiver autonomous integrity monitoring (RAIM) and fault detection and exclusion (FDE) availability prediction programs.

2) These procedures must be in the operator's manuals and checklists, as appropriate. Training on the use of long-range navigation (LRN) equipment and procedures must be included in the operator's training curricula. The operator's minimum equipment lists (MEL) and maintenance programs must address the LRN equipment. The POI must coordinate with the principal avionics inspector (PAI) to obtain the proper nomenclature of the manufacturer and model to ensure the LRN equipment is installed and maintained in accordance with approved data. (See Volume 4, Chapter 1, Section 2.)

H. RNP 2.

1) For RNP 2 operations, an aircraft must meet a cross-track keeping accuracy and along-track positioning accuracy of no greater than ±2 nautical miles (NM) for 95 percent of the flight time. This OpSpec/MSpec/LOA does not address communications or surveillance requirements that may be specified to operate on a particular route or area.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) Eligibility of aircraft and certification of its navigation equipment for RNP 2 must be determined:

a) The RNP 2 specification is based upon GNSS. Positioning data from other types of navigation sensors may be integrated with the GPS data provided they do not cause position errors exceeding the Total System Error (TSE) budget. Otherwise, means should be provided to deselect the other navigation sensor types.

b) For RNP 2 operations in oceanic or remote airspace, at least two fully serviceable independent GNSS LRNS, with integrity such that the navigation system does not provide misleading information, must be installed in accordance with AC 20-138. These will form part of the basis upon which RNP 2 operational approval is granted.

c) For aircraft incorporating GPS, AC 20-138 (or equivalent documents) provides an acceptable means of complying with installation requirements for aircraft.

d) Flightcrew training and operating procedures for the navigation systems to be used must be identified by the operator.

I. RNP 4.

1) For RNP 4 operations, an aircraft must meet a cross-track keeping accuracy and along-track positioning accuracy of no greater than ±4 NM for 95 percent of the flight time. This OpSpec/MSpec/LOA does not address communications or surveillance requirements that may be specified to operate on a particular route or area. Navigation sensor and system, airworthiness, and operational requirements are specified in AC 90-105. Some examples of routes that require RNP 4 are:

a) Australian Tasman Sea (detailed guidance is contained in Australian Government, Civil Aviation Safety Authority, AC 91U-3(0), Required Navigation Performance 4 (RNP 4) Operational Authorisation).

b) Eastern Russia, the Magadan region (requires Future Air Navigation System (FANS) 1/A-equipped aircraft).

c) Western region of China and north of the Himalayas, Route 888 (because of the remoteness of the area, RNP 4, Controller-Pilot Data Link Communication (CPDLC), and Automatic Dependent Surveillance (ADS) are required).

2) Eligibility of aircraft and certification of its navigation equipment for RNP 4 must be determined:

a) For RNP 4 operations in oceanic or remote airspace, at least two fully serviceable independent LRNS, with integrity such that the navigation system does not provide misleading information, must be fitted to the aircraft. These will form part of the basis upon which RNP 4 operational approval is granted.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

b) For aircraft incorporating GPS, AC 20-138 (or equivalent documents) provides an acceptable means of complying with installation requirements for aircraft that integrate or do not integrate GNSS output with that of other sensors.

c) Flightcrew training and operating procedures for the navigation systems to be used must be identified by the operator.

3) If applicable, entry options for the RNP Time Limit block (for which the navigation system has been approved) are:

- X Hours. Example: 6.3 hours, 10.0 hours.
- UNL (Unlimited). Example: Primary means GPS, approved multisensor system that incorporates GPS.
- NA (not applicable). Example: aircraft/navigation system not used in RNP operations.

J. RNP 10.

1) Guidance. AC 90-105 provides guidance for operation in remote airspace, including oceanic and SAOs, and is intended to support 50 NM lateral and the 50 NM longitudinal distance-based separation minima. This OpSpec/MSpec/LOA does not address communications or surveillance requirements that may be specified to operate on a particular route or in a particular area.

2) Requests for Deviation. If an operator requests to deviate from the practices and procedures in AC 90-105, the inspector must forward a request for assistance through the RNGB (AXX-220) to the Flight Technologies and Procedures Division (AFS-400).

3) Application for Approval. The steps in this process should be followed when an operator seeks authority to operate an airplane type/LRNS combination in Oceanic and Remote Continental navigation areas where RNP 10 is applied and the operator has not previously received RNP 10 approval for that specific airplane type/LRNS combination. Normally, if an operator has received initial Oceanic and Remote Continental navigation/RNP 10 approval for a specific airplane type/LRNS combination, that operator should not be required to reapply for approval to conduct Oceanic and Remote Continental navigation/RNP 10 operations on additional routes or areas.

4) Required Application Items. AC 90-105 provides guidance on the content of an operator's RNP 10 application. The application should include the following:

a) Aircraft/Navigation System Group. Airworthiness documents that establish the proposed aircraft/navigation system group, its RNP 10 approval status, and a list of airframes in that group.

b) Sources of LRNS. Approved or requested RNP 10 time limit for aircraft for which inertial navigation systems (INS) or IRUs are the only source of LRN.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

c) RNP 10 Area of Operations. Documentation establishing the RNP 10 area of operations or routes for which the specific aircraft/navigation system is eligible.

d) Operating Practices and Procedures. Documentation that the operator has adopted operating practices and procedures related to RNP 10 operations.

e) Pilot and Aircraft Dispatcher Knowledge. Documentation showing that the pilot and, if applicable, aircraft dispatcher knowledge of RNP 10 operating practices and procedures have been adopted.

f) Airworthiness Practices. Documentation that appropriate maintenance practices and procedures have been adopted.

g) MEL Updates (if applicable).

h) Operating History. Operating history that identifies past problems and incidents, if any, and actions taken to correct the situation.

i) Removal of RNP 10 Operating Authority. Awareness of the necessity to follow up action after navigation error reports, and the potential for removal of RNP 10 operating authority.

5) Aircraft Groups and Eligibility Aircraft Groups (Fleets of Aircraft).

a) Aircraft Groups (Fleets of Aircraft). The operator must show the aircraft/navigation system groups that will be presented for approval of RNP 10 operations and provide a list of airframes that are determined to be in the specific aircraft/navigation system groups to be evaluated.

b) Aircraft Equipped with GPS Approved to Primary Means of Navigation Standards. For aircraft equipped with GPS, where such GPS units are the only systems for LRN, the operator must show that it is approved in accordance with AC 90-105. An RNP 10 time limit is not applicable.

c) Multisensor Systems Integrating GPS (with GPS Integrity Provided by RAIM). For multisensor systems incorporating GPS, the operator must show that systems are approved and operated in accordance with AC 90-105. An RNP 10 time limit is not applicable.

d) GPS Equipage with Other Approved LRNS (e.g., INS or IRU). (Refer to AC 90-105 and AC 20-138.) The operator must show that aircraft equipped with GPS and one or more approved LRNS are installed and operated in accordance with AC 90-105 and AC 20-138. An RNP 10 time limit is not applicable.

e) Equipage Where INS or IRU Provide the Only Means of LRN. The operator must show that INS or IRU installation is approved in accordance with AC 20-138. Unless the operator takes action to extend the approved navigation system time limit and/or plans to update the system en route, a baseline RNP 10 time limit of 6.2 hours, starting at the time the system was placed in navigation mode, is applicable.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

f) Aircraft Eligibility through Data Collection (Eligibility Group 3). For navigation systems not approved under existing criteria, the operator may demonstrate RNP 10 eligibility through data collection in accordance with the processes detailed in a booklet, RNP 10 Qualification through Data Collection, obtained from the POI or by contacting AFS-400 and/or downloading a copy from the Performance-Based Flight Systems Branch (AFS-470) Web site, Oceanic and Remote Airspace (Special Areas of Operation).

6) Maintenance Requirements. The certificate holder must provide documentation that appropriate maintenance practices and procedures have been adopted.

7) MEL Requirements. In accordance with AC 90-105, if applicable, the operator must revise the MEL to address any new operating requirements.

8) Operations Program. Operations manuals and checklists in accordance with AC 90-105.

a) Part 121, 125, and 135 certificate holders must provide revisions to manuals and checklists to show the adoption of the RNP 10 operating practices and procedures contained in the reference paragraphs and sections listed in this paragraph.

b) Operations training programs and operating practices and procedures are addressed in AC 90-105.

9) Deviation to RNP 10 Requirements. The Administrator may authorize a certificate holder to deviate from the RNP 10 requirements of OpSpec B036 for a specific flight in designated RNP 10 airspace if the Air Traffic Service Provider (ATSP) determines that the airplane may be provided appropriate separation and the flight will not interfere with or impose a burden on other operators. For operations under such authority, the certificate holder will not take off for flight in designated RNP 10 airspace unless the following requirements of paragraphs b and d of OpSpec B036 are met:

a) If fuel planning is predicated on en route climb to flight levels where RNP 10 is normally required, an appropriate request must be coordinated with the ATSP in advance of the flight.

b) The appropriate information blocks on the ICAO flight plan filed with the ATSP show that the airplane and/or certificate holder is not approved for RNP 10 as specified in the certificate holder's OpSpec B036.

c) At dispatch, at least one of the navigation system configurations listed below must be installed and operational:

1. At least two independent INS.

2. At least two flight management system (FMS)/navigation sensor combinations (or equivalent).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3. At least two independent approved GPS navigation systems acceptable for primary means of Oceanic and Remote Continental navigation in oceanic and remote areas.

4. At least two approved independent LRNS from the list below:

- INS;
- FMS/navigation sensor combination (or equivalent); and
- GPS navigation system approved for Oceanic and Remote Continental navigation in oceanic and remote areas.

d) Anchorage and Tokyo Oceanic Notices to Airmen (NOTAM), U.S. Government Flight Information Publication (FLIP) Supplement for Alaska. ATSPs have established procedures to accommodate in RNP 10 airspace a limited number of flights by airplanes and/or operators not approved for RNP 10. The operator should show that it has adopted appropriate policies and practices to enable it to operate unapproved airplanes in RNP 10 airspace in situations such as:

- Ferry flights,
- Flights that do not meet RNP 10 MEL requirements, and
- Nonscheduled charter flights using unapproved airplanes.

e) Contacts at Tokyo and Anchorage Oceanic Centers and air traffic policy and procedures for such flights are listed in NOTAMs and/or the FLIP Supplement for Alaska and on the FAA RNP Web site. Part 121, 125, and 135 certificate holders will be expected to comply with the provisions of OpSpec B038 for deviation from RNP 10 requirements.

10) Flight Plan Filing. The certificate holder or program manager must ensure the appropriate equipment codes in field 10A and performance-based navigation codes in field 18 are filed in the ICAO ATC flight plan. Refer to the Aeronautical Information Manual (AIM), paragraph 5-1-9, International Flight Plan (FAA Form 7233-4)—IFR Flights (For Domestic or International Flights).

11) MEL. The certificate holder or program manager must review the MEL and provide guidance to its personnel when inoperative equipment will affect the Area Navigation (RNAV) or Performance-based Navigation (PBN) capabilities of the aircraft. The guidance must contain information on flight plan refiling procedures to include changes to equipment codes and PBN capabilities.

12) Navigation Errors. The operator should indicate awareness of the provisions of AC 90-105 for operator follow-up action on reported navigation errors and of the potential to remove RNP operating authority.

13) Validation. For guidance on validation tests and validation flights for part 121 and 135 operators, consult your RNGB (AXX-220) SAO specialist and see Volume 3, Chapter 29, Section 8.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

14) OpSpec/MSpec Entries.

a) The Navigation Specification(s) block provides the bundling options for which the specific navigation system has been approved. Entry options for this block are:

- RNP X. Example: RNP 4, RNP 10, etc.
- Per the Airplane Flight Manual (AFM). Example: For B747-400 equipped with FANS-1/A package, AFM establishes RNP Type availability based on GPS satellite availability at dispatch.
- NA (not applicable). Example: Aircraft not used for RNP operations.

b) Entry options for the RNP Time Limit block are:

- X Hours. Example: 6.3 hours, 10.0 hours.
- UNL (Unlimited). Example: Primary means GPS, approved multisensor system that incorporates GPS.
- NA (not applicable). Example: Aircraft/navigation system not used in RNP operations.

OPSPEC/MSPEC B037—OPERATIONS IN CENTRAL EAST PACIFIC (CEP) AIRSPACE.

A. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of AC 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen Special Areas of Operation (SAO) specialist (AXX-220), formerly known as navigation specialist.

B. Requirements. OpSpec/MSpec B036 is required before issuing the following OpSpecs:

- B037, Operations in Central East Pacific (CEP) Airspace.
- B038, North Pacific (NOPAC) Operations.
- B039, Operations in North Atlantic High Level Airspace.
- B040, Operations in Areas of Magnetic Unreliability.
- B041, North Atlantic Operation (NAT/OPS) with Two-Engine Airplanes Under Part 121.

NOTE: Exception to OpSpec B036. Special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a Single Long-Range Navigation System (S-LRNS). This information can be found in the guidance for OpSpec B039.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. Authorized Area of Operation. The CEP system is the organized route system between Hawaii and the West Coast of the United States. Several Air Traffic Service (ATS) routes and associated transition waypoints are within the CEP. Effective February 24, 2000, Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance (RNP) 10 is required for aircraft operating on the CEP routes. Operators are encouraged to pursue RNP 4 authorization to meet future oceanic requirements. Aircraft not approved for RVSM can expect to fly above or below the exclusionary airspace. Non-RVSM-authorized aircraft (e.g., Humanitarian, State Aircraft, and Test and Development) must contact Oakland Center (ZAK) prior to flight in RVSM airspace. Refer to AC 91-70 as well as Pacific Chart Supplements, for further information.

D. Purpose. OpSpec B037 authorizes Class II Navigation in the airspace designated as CEP airspace. The operator must be authorized to conduct Class II Navigation in accordance with OpSpec B036 before B037 can be issued. If the operator is authorized to conduct Class II Navigation in compliance with OpSpec B036, paragraph a, no additional validation flights need to be accomplished. Inspectors will conduct tabletop exercises for B037 in accordance with Volume 3, Chapter 29, Section 8. Before issuing OpSpec B037, the principal operations inspector (POI) must ensure the operator has a program that includes training of flightcrews on requirements and standards for conduct of flight in CEP airspace.

OPSPEC/MSPEC B038—NORTH PACIFIC (NOPAC) OPERATIONS.

A. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen Special Areas of Operation (SAO) specialist (AXX-220), formerly known as navigation specialist.

B. Requirements. OpSpec/MSpec B036 is required before issuing the following OpSpecs:

- B037, Operations in Central East Pacific (CEP) Airspace.
- B038, North Pacific (NOPAC) Operations.
- B039, Operations in North Atlantic High Level Airspace.
- B040, Operations in Areas of Magnetic Unreliability.
- B041, North Atlantic Operation (NAT/OPS) with Two-Engine Airplanes Under Part 121.

NOTE: Exception to OpSpec B036: special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a Single Long-Range Navigation System (S-LRNS). This information can be found in the guidance for OpSpec B039.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. Authorized Area of Operation. The NOPAC area of operation authorized by this paragraph lies within the Anchorage and Tokyo flight information regions (FIR). The southern lateral boundary of this area is 100 nm south of the southernmost NOPAC airspace route. The northern lateral boundary is the northern boundaries of the Anchorage and Tokyo FIRs. The vertical boundaries include the airspace between the minimum en route altitude (MEA) and the maximum authorized altitude (MAA).

D. Purpose. OpSpec/MSpec B038 authorizes Class II Navigation conducted in airspace designated as NOPAC operations airspace. The operator must be authorized to conduct Class II Navigation in compliance with OpSpec B036 before OpSpec/MSpec B038 can be issued. Validation tests of the operator's ability to operate in NOPAC airspace are required in accordance with Volume 3, Chapter 29, Section 8. Before issuing OpSpec/MSpec B038, the principal operations inspector (POI) must ensure the operator has a program that includes training of flightcrews on requirements and standards for conduct of flight in CEP airspace. When validation tests are completed, OpSpec B038 may be issued.

OPSPEC/MSPEC/LOA B039—OPERATIONS IN NORTH ATLANTIC HIGH LEVEL AIRSPACE (NAT HLA).

A. Purpose. OpSpec/MSpec/LOA B039 is issued to authorize aircraft operations within the airspace designated by the International Civil Aviation Organization (ICAO) as NAT HLA.

NOTE: The airspace known as NAT HLA was formerly called NAT Minimum Navigation Performance Specification (NAT/MNPS) airspace.

NOTE: NAT HLA is that volume of airspace (as defined in ICAO Document 7030, Regional Supplementary Procedures, for the NAT region) between flight level (FL) 285 and FL 420 within the oceanic control areas of Bodo Oceanic, Gander Oceanic, New York Oceanic East, Reykjavik, Santa Maria, and Shanwick, excluding the Shannon and Brest Ocean Transition Areas.

B. Applicability. FAA authorization is a prerequisite for operations within NAT HLA. B039 applies to operations performed under 14 CFR parts 91, 91 subpart K (part 91K), 121, 125, and 135.

C. Requirements. Operators must have been issued OpSpec/MSpec/LOA B036 or OpSpec/MSpec/LOA B054 in order to be considered for B039. Authorization to conduct oceanic and remote airspace navigation using long-range navigation systems (LRNS) is a prerequisite for operations in NAT HLA. In the case of operators using aircraft equipped with multiple LRNS, B036 will also identify the Required Navigation Performance (RNP) value (e.g., RNP 4 or RNP 10) authorized for the intended operations. As of January 2015, all new authorizations for operations within NAT HLA (i.e., all new requests for B039) must be based on the operator's demonstration of capability to navigate to RNP 10 specifications. All previous authorizations (i.e., those B039 authorizations bearing the MNPS title) will expire on December 31, 2019.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: Operators equipped with only a single LRNS, and issued B054, are restricted to special routes within NAT HLA specifically designated for aircraft so equipped. The Blue Spruce routes described in NAT Document 007, North Atlantic Operations and Airspace Manual, are examples of the special routes.

NOTE: Aircraft and operator qualification requirements for RNP 10 are prescribed 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.

1) Operators must document the training provided to flightcrew members and operational control personnel (dispatchers/flight followers/operational controllers as applicable) to properly plan and operate flights within NAT HLA. This NAT HLA training is in addition to that provided by the operator on the general requirements for planning and operating flights in oceanic and remote continental airspace. The operator's training and flightcrew procedures must address responses to a partial or complete loss of long-range navigation capability. Training must include NAT-MNPS/HLA-related information contained within the current editions of the following references:

- AC 91-70, Oceanic and International Operations.
- ICAO Doc 4444, Procedures for Air Navigation Services—Air Traffic Management (PANS-ATM), paragraph 15.2, Special Procedures for In-Flight Contingencies in Oceanic Airspace.
- ICAO Doc 7030, Regional Supplementary Procedures.
- ICAO NAT OPS Bulletins (and associated Special Emphasis Items).
- NAT Document 007, North Atlantic Operations and Airspace Manual.

2) Inspectors should not add language to the B039 templates specifying communications equipment requirements and/or limitations. The applicable parts of 14 CFR pertaining to extended overwater operations (i.e., part 91, § 91.511; part 121, § 121.351; part 125, § 125.203; and part 135, § 135.165), as well as ICAO Annex 2, ICAO Doc 7030, and NAT Doc 007, collectively provide operators with sufficient information to enable them to understand the applicable limitations when their aircraft is equipped with something less than two long-range communications systems. In addition, the provisions and limitations of OpSpec/MSpec B045 may apply. It is also worthwhile to note that § 91.511(d) does permit operations with only a single high frequency (HF) radio in specific circumstances. Regardless of whether a part 91 B039 LOA recipient is governed by the requirements of § 91.511 (applicability defined in § 91.501), the communications requirements specified in Annex 2 do apply and are clear: the operator must have communications equipment necessary to communicate with air traffic control (ATC) throughout the route of flight.

3) In accordance with Volume 3, Chapter 29, Section 8, validation of the operator's readiness to conduct operations in NAT HLA is required. Inspectors must coordinate with the Regional NextGen Branch (AXX-220) Special Areas of Operation (SAO) specialist to determine whether validation testing should include validation flights.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

D. Additional Information. The NAT HLA is considered an SAO. Additional information relating to authorizing operations in an SAO is provided within Volume 4, Chapter 1. Additionally, Volume 4, Chapter 12 provides information pertinent to issuing an LOA for operations in an SAO. You must contact your regional SAO specialist if you have questions concerning SAOs, particularly regarding requirements for operations within those areas.

OPSPEC/MSPEC B040—OPERATIONS IN AREAS OF MAGNETIC UNRELIABILITY.

A. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen (AXX-220) Special Areas of Operation (SAO) specialist, formerly known as navigation specialist.

B. Requirements. OpSpec/MSpec B036 is required before issuing the following OpSpecs:

- B037, Operations in Central East Pacific (CEP) Airspace.
- B038, North Pacific (NOPAC) Operations.
- B039, Operations in North Atlantic High Level Airspace.
- B040, Operations in Areas of Magnetic Unreliability.
- B041, North Atlantic Operation (NAT/OPS) with Two-Engine Airplanes Under Part 121.

NOTE: Exception to OpSpec B036: special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a Single Long-Range Navigation System (S-LRNS). This information can be found in the guidance for OpSpec B039.

C. Authorized Area of Operation. For the northern hemisphere, the Canadian Aeronautical Information Publication and Transport Canada's Designated Airspace Handbook establishes the basic boundaries for the Canadian Northern Control Area (NCA), which includes an area of magnetic unreliability (AMU).

D. Purpose. OpSpec/MSpec B040 authorizes either Class I or Class II Navigation in AMUs. If flight operations in these areas involve Class II Navigation requiring long-range navigation systems (LRNS), OpSpec B036 must also be issued. Validation tests of the operator's ability to conduct flights in AMUs are required. Except for inertial navigation systems (INS), validation tests of any type of navigational equipment must be non-revenue. When validation tests are successfully completed, OpSpec B040 may be issued. When an operator requests authorization to conduct operations in AMUs, the principal operations inspector (POI) will contact their regional (AXX-220) SAO specialists (formerly known as navigation specialists) to work with the POI to ensure that operations in AMUs meet appropriate requirements. For more information on flight operations in AMUs, see Volume 4, Chapter 1, Section 5.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

E. Airplane and Navigational Models. The airplane (make, model, and series (M/M/S)), the manufacturer and model of the navigational equipment, and the type of navigation (heading reference) to be used must be listed in subparagraph B040a. When pilot-operated electronic LRNS are authorized, they must be dual or redundant systems. AMU operations using GPS as the sole LRNS are not authorized. The following are examples of how this information should be listed.

Table 3-10. Examples of Airplane and Navigational Equipment Information for OpSpec B040a

AIRCRAFT TYPE (MAKE/MODEL)	NAVIGATION EQUIPMENT (MANUFACTURER/MODEL)	TYPE NAVIGATION	
		EN ROUTE	APPROACH
B-777-223	Honeywell/FMCF (AIMS) 4075350-902 Honeywell ADIRU HG2060 Rockwell-Collins/DME 822-0329 Rockwell-Collins/MMR(GPS) 822-1152	True/Mag	True/Mag
A-330-323	Thales FMGEC C12858 Honeywell ADIRU HG2030 Rockwell-Collins DME 900 Thales MMR TLS755	True/Mag	True/Mag
DC-10-30	Dual Delco Carousel IV INSS	True	True/Mag

OPSPEC B041—NORTH ATLANTIC OPERATION (NAT/OPS) WITH TWO ENGINE AIRPLANES UNDER PART 121.

A. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen Special Areas of Operation (SAO) specialist (AXX-220), formerly known as navigation specialist.

B. Requirements. OpSpec/MSpec B036 is required before issuing the following OpSpecs:

- B037, Operations in Central East Pacific (CEP) Airspace.
- B038, North Pacific (NOPAC) Operations.
- B039, Operations in North Atlantic High Level Airspace.
- B040, Operations in Areas of Magnetic Unreliability.
- B041, North Atlantic Operation (NAT/OPS) with Two-Engine Airplanes Under Part 121.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: Special routes/Blue Spruce routes have been established in limited portions of North Atlantic High Level Airspace (NAT HLA) where aircraft equipped to use International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID) can operate with a Single Long-Range Navigation System (S-LRNS). This information can be found in the guidance for OpSpec B039.

C. Purpose. OpSpec B041 is issued to those 14 CFR part 121 operators who demonstrate the capability and competency to safely conduct operations over the North Atlantic with two-engine airplanes within the 60-minute constraint of part 121, § 121.161. This paragraph restricts the authorized area of operation to those portions of the North Atlantic which have a maximum diversion time, from any point along the route of flight, to a diversionary airport of 60 minutes or less at the approved one-engine inoperative cruise speed (under standard conditions in still air). Due to the unique nature of these operations, OpSpec B041 will not be issued until review and concurrence is obtained from regional Flight Standards division (RFSD) NextGen (AXX-220) Branch and AFS-400. It is FAA policy and direction that these operations be evaluated and approved on a case-by-case basis. This evaluation must include consideration of the character of the terrain within the proposed area of operation, kind of operation, performance of the airplane to be used, capabilities of the alternate airports en route, and the provisions of OpSpec B041. This evaluation must also include consideration of the routes of flight, and airports and instrument approaches likely to be used during an en route diversion resulting from an in-flight contingency.

D. Other OpSpecs. Since these operations involve Class II Navigation, OpSpec B036 must also be issued. OpSpec B039 must be issued if an operation involves flight in NAT HLA. OpSpec B050 must authorize operation in the North Atlantic and must specify appropriate reference paragraphs including any restrictions/limitations necessary to accommodate operations of two-engine airplanes in the North Atlantic. Since the operations authorized by OpSpec B041 are restricted by the 60-minute rule, these operations comply with the basic provisions of § 121.161. Therefore, a request for deviation from the basic provisions of this rule is not required for this type of operation.

E. Airplane Model. Each airplane (make, model, and series (M/M/S)) authorized for these operations must be listed in OpSpec B041. Any special equipment or limitations applicable to operations in the NAT/OPS area, including any prohibition of the operation of certain series of aircraft, must also be listed in OpSpec B041 for each make and model listed. Table 3-11 below is an example of how each authorized airplane should be listed.

Table 3-11. Example Listing of Additional Special Equipment/Limitations by Authorized Airplane

AIRPLANE TYPE MAKE/MODEL/SERIES	ADDITIONAL SPECIAL EQUIPMENT/LIMITATIONS
B-767-224	Dual Honeywell FMCS/IRS
A-330-323	Dual Thales-Smiths FGEC/Litton ADIRU

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC/LOA B043—SPECIAL FUEL RESERVES IN INTERNATIONAL OPERATIONS.

A. Purpose. OpSpec B043 provides the method for approving operators that conduct operations under 14 CFR part 121 or 125 to use fuel supplies specified in OpSpec B043 in place of fuel supplies required by part 121, § 121.645 or part 125, § 125.377, as applicable. This authorization, OpSpec B043, is applicable to 14 CFR part 119 certificate holders conducting operations under part 121 or 125. As LOA B043, it is also applicable to those operators that have been issued a deviation from the certificate and OpSpec requirements of part 125 but are still required to conduct operations in accordance with part 125.

1) This authorization grants the operator a deviation from certain requirements of § 121.645(b) or § 125.377(b), as applicable. Therefore, § 121.645(b) or § 125.377(b), as applicable, and OpSpec B043 must be listed in the operator's OpSpec A005.

2) Fuel supplies required by OpSpec B043 are a hybrid between domestic fuel reserves and international fuel reserves.

a) When a portion of the route is conducted in an area(s) where the aircraft's position can not be reliably fixed at least once each hour in accordance with paragraph B032 of these OpSpecs additional international reserve fuel supplies must be loaded in accordance with subparagraph b) below.

b) The additional reserve fuel must be equal to the amount of fuel required to fly for a period of 10 percent of the time it takes to fly that portion of the route in Class II Navigation, unless utilizing this deviation in conjunction with OpSpec B343, Performance-Based Contingency Fuel Requirements for Flag Operations.

B. Rationale. The rationale for the provisions of OpSpec B043 includes the following:

1) The additional international fuel supply is required only for that portion of a flight in areas where there is a lack of International Civil Aviation Organization (ICAO) ground-based Navigational Aids (NAVAID), reliable very high frequency (VHF) communications, reliability of winds aloft flight planning forecast, and diversionary airports. Examples of areas lacking these facilities and services include transoceanic areas, Northern Canada, the Polar Regions, and certain areas in South America, Africa, the Middle East, and Asia.

2) The additional international reserve fuel supply is not required for flights in areas where there are ICAO ground-based NAVAIDs (Class I Navigation), reliable VHF communications, reliable upper air wind pattern information and availability of adequate diversionary airports.

3) For example, the additional international reserve fuel supply is not required between inter-European cities or for certain routes between U.S. cities and Central and South American cities. In another example, the additional international reserve fuel supply is not required for certain airways between the U.S. and Canada, or Alaska exclusive of the Northern Control Area (NCA) tracks which require long-range navigation systems (LRNS) to adequately navigate to the degree of accuracy required by air traffic control (ATC) Class II Navigation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. Reviewing the Proposed Operations. When an operator requests authorization to conduct operations using the special fuel reserves described in OpSpec B043, the principal operations inspector (POI) will advise AFS-220/820 and the regional NextGen (AXX-220) Special Areas of Operation (SAO) specialist. AFS-220 will arrange for one of the FAA's SAO and aircraft dispatch aviation safety inspector (ASI) specialists to work with the POI to ensure the operator's proposed operations with special fuel reserves will meet appropriate requirements. AFS-220/820 will review the operator's request and supporting documentation and advise the POI of concurrence and or comments.

D. Operator Procedures. Before issuing OpSpec B043, the operator must develop procedures, which ensure that flightcrews and aircraft dispatchers (or flight followers) are made specifically aware of fuel supplies to be used for a particular flight.

1) The procedures must provide for strict in-flight monitoring of fuel consumption and calculation of fuel remaining at the end of flight.

2) These procedures must specifically prohibit use of the provisions of OpSpec B044 (redispatch or rerelease) when a flight is conducted in accordance with OpSpec B043.

3) These procedures must require flightcrews report immediately to the aircraft dispatcher or flight follower anytime the estimated time of arrival at the destination exceeds 15 minutes beyond the flight plan estimated time of arrival (ETA), the cruise altitude varies by 4,000 feet or more from the flight plan, or the airplane deviates more than 100 nautical miles (NM) from the flight-planned route.

4) Procedures must be established for flightcrews, aircraft dispatchers, or flight followers, as applicable, for the reporting of a fuel emergency or any fuel states that result in coordination with ATC or dispatch that then result in ATC providing priority handling of that aircraft.

5) These procedures must be included in the operator's manual.

6) Flight crewmembers and aircraft dispatchers or flight followers, as applicable, must be trained to use these procedures.

E. Reviewing the Proposed Procedures. The POI must ensure the operator's procedures are adequate and that flightcrew members and aircraft dispatchers (or flight followers), as applicable, who will be using the procedures are properly trained. The POI should request the assistance of the regional SAO specialists and AFS-220/820 specialists to review the procedures. OpSpec B043 authorization may be issued when the response from AFS-220/820 has concurred that the procedures are adequate. The POI will review the response and comments and resolve any issues and issue OpSpec B043.

NOTE: OpSpec/LOA A005 must also be amended to list the deviation from § 121.645 or § 125.377, as applicable.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC B044—PLANNED REDISPATCH OR RERELEASE EN ROUTE.

A. Authorization. OpSpec B044 provides the means for approving certificate holders that conduct operations under 14 CFR part 121 to conduct planned redispatch or planned rerelease operations in accordance with part 121, § 121.631. OpSpec B044 provides authorization for a certificate holder to conduct these operations on long range flights, provided the conditions and limitations of the paragraph are met. The term "redispatch" applies to certificate holders conducting flag operations. The term "rerelease" applies to certificate holders who are only authorized to conduct supplemental operations. For the purposes of this section, the term "redispatch" will be used when discussing both flag and supplemental operations.

1) Authorized Areas of Use. Planned redispatch can only be conducted where B044 is referenced within the specific areas of en route operations authorized by OpSpec paragraph B050, Authorized Areas of En Route Operation, Limitations, and Procedures. In other words, B044 should be authorized in all areas of B050 through which the aircraft will operate on a planned redispatch. A certificate holder cannot conduct planned redispatch operations in accordance with B044 in an authorized area of en route operations unless B044 is specifically referenced in that area.

2) Reduction in En Route Reserve Fuel. Planned redispatch, as authorized by OpSpec B044, provides for a reduction in the en route reserve fuel required by § 121.645(b)(2) by allowing that fuel to be based partially on the time it would take to get to an intermediate destination, provided the flight can be redispatched from a predetermined redispatch point, to the desired or "intended" destination.

3) Fuel Supply at the Time of a Redispatch/Rerelease. If the fuel reserves required by § 121.645(b)(2) have not been used at the time the aircraft reaches the redispatch point, then the flight can be redispatched to the intended destination as long as the fuel supply on board the aircraft is enough to allow compliance with §§ 121.645 and 121.647 (when necessary), and the conditions en route and at the intended destination airport will allow the flight to continue with safety.

B. Conditions and Limitations. B044 contains 11 specific conditions and limitations that must be complied with. Principal operations inspectors (POI) must ensure that each of the specific conditions and limitations are complied with prior to issuing B044; for the continued approval of B044; and when adding B044 to a new authorized area of en route operations. The 11 conditions and limitations are as follows:

1) Within the specific area of en route operations, the OpSpec subparagraph must be listed in OpSpec B050.

2) The dispatch or flight release must contain the following:

a) A release to the initial destination airport.

b) A plan for redispatch or rerelease from the planned redispatch or rerelease point to the intended destination airport. The planned redispatch or rerelease point must be a

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

point that is common to both the route from the origin airport to the intended destination airport and the route from the origin airport to the initial destination airport.

c) Alternate airports for both the initial destination airport and the intended destination airport in accordance with § 121.621 or § 121.623.

d) The fuel required to fly from the origin airport and land at the initial destination airport.

e) The fuel required to fly from the redispatch or rerelease point and land at the intended destination airport.

f) The total fuel required to fly from the origin airport and land at the intended destination airport based on the redispatch or rerelease. In determining these fuel requirements, the certificate holder must comply with § 121.647.

g) The appropriate weather reports, forecasts, and Notices to Airmen (NOTAM) affecting the route to be flown, and the facilities at all airports specified in the dispatch or flight release.

3) The flight plan must be prepared prior to departure from the origin airport to the initial destination airport and from the redispatch or rerelease point to the intended destination airport. The flight plan must contain an operational analysis that includes the following:

a) The total fuel listed in subparagraph b(2)(f) of this OpSpec.

b) Routes to be flown, including the flight levels. The portions of the routes that are common to both the route from the origin airport to the initial destination airport, and the route from the origin airport to the intended destination airport, may be combined in the body of the flight plan.

c) Estimated times en route.

d) Alternate airports for both the initial destination airport and the intended destination airport in accordance with § 121.621 or § 121.623.

4) A new operational analysis must be conducted within 2 hours prior to the flight's arrival at the planned redispatch or rerelease point. In preparing the new operational analysis, the dispatcher or person designated to exercise operational control (other than the pilot in command (PIC)) must:

a) Conduct an updated fuel analysis based on the current route of flight, wind conditions, and aircraft weight, on the route from the planned redispatch or rerelease point to the intended destination airport, and any required alternate airports; and

b) Inform the PIC of the results of the updated fuel analysis and all current information concerning weather conditions, navigation and ground facilities, known air traffic delays, and services at the intended destination and alternate airports specified in the redispatch

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

or rerelease, as required by § 121.601(c) for flag operations, or § 121.603(b) for supplemental operations.

5) If the operational analysis required in subparagraph b(4) of this OpSpec indicates there is sufficient fuel on board (FOB) to complete the redispatch or rerelease to the intended destination airport, the dispatcher or person designated to exercise operational control (other than the PIC) must issue a dispatch or flight release from the planned redispatch or rerelease point to the intended destination airport. That redispatch or rerelease must contain:

a) A release from the planned redispatch or rerelease point to the intended destination airport;

b) Updated route, if required based on the operational analysis conducted in subparagraph b(4) of this OpSpec;

c) Alternate airport for the intended destination airport, as required by § 121.621 or § 121.623;

d) The fuel required to fly from the planned redispatch or rerelease point and land at the intended destination airport. In determining these fuel requirements, the certificate holder must comply with § 121.647;

e) The appropriate weather reports, forecasts, and NOTAMs affecting the route to be flown, and the facilities at all airports specified in the dispatch or flight release; and

f) The name of the dispatcher or person authorized to exercise operational control issuing the redispatch or rerelease along with the time of issuance.

6) The PIC's decision on whether or not to accept the redispatch or rerelease shall be made part of the redispatch or rerelease. The redispatch or rerelease must be retained in accordance with § 121.695 or § 121.697, as applicable.

7) If while the aircraft is en route the flight cannot continue in accordance with the dispatch or flight release provided in subparagraph b(2) or b(5) of this OpSpec, the certificate holder must comply with the provisions of § 121.631(f) and (g) to amend the release.

8) Loss of communication:

a) If there is a total loss of communication while en route, the PIC must follow the lost communications procedures as outlined in the Aeronautical Information Manual (AIM), or the provisions specified in International Civil Aviation Organization (ICAO) Annex 2, Rules of the Air, as applicable to the airspace in which communication is lost.

b) If there is a total loss of communication while en route, the aircraft dispatcher or person designated to exercise operational control must follow the emergency procedures set forth in § 121.557(b) and (c) for flag operations, and § 121.559(b) and (c) for supplemental operations.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

9) If the estimated time of arrival (ETA) at the initial destination or intended destination exceeds 15 minutes beyond the flight plan, or the cruise altitude varies by 4,000 feet or more from the flight plan, or the airplane deviates more than 100 nautical miles (NM) from the route specified in the flight plan, the flightcrew must notify the aircraft dispatcher or person designated to exercise operational control as soon as practicable. The aircraft dispatcher or person designated to exercise operational control must then evaluate the FOB and determine if additional action is necessary.

10) The certificate holder must establish policies and procedures for monitoring the actual fuel burn during flight and comparing it to the planned fuel burn. The certificate holder must conduct a real time analysis of any fuel burn en route that exceeds the planned fuel burn, and ensure sufficient fuel remains at the redispatch or rerelease point to allow a flight to continue to the intended destination airport. If sufficient fuel for continuation to the intended destination is not onboard the aircraft at the time of redispatch or rerelease, the certificate holder must have policies and procedures in place to ensure the flight lands at the initial destination or alternate airport or, if appropriate, amend the dispatch or flight release to include another suitable airport authorized for that type of aircraft.

11) The provisions of this OpSpec must not be used in conjunction with the provisions of OpSpecs B043 or B343.

C. Certificate Holder's Policies and Procedures. Prior to issuing B044, POIs must ensure that the certificate holder's manuals for use by flightcrew members and dispatchers (or persons designated to exercise operational control if the certificate holder is only authorized to conduct supplemental operations) contain adequate policies and procedures regarding the authority contained in OpSpec B044 and comply with each of the conditions and limitations contained therein.

NOTE: POIs must ensure that an aviation safety inspector (ASI)-aircraft dispatcher (AD), commonly referred to as a dispatch inspector or dispatch safety inspector (DSI), reviews the certificate holder's procedures and methods of compliance with the conditions and limitations. If there is no ASI-AD resource available in the certificate-holding district office (CHDO), the POI should contact the regional Flight Standards division (RFSD) for assistance in locating a DSI within the region. If the RFSD is unable to locate an ASI-AD resource, then the appropriate branch of the RFSD should send a request for assistance to AFS-200 in locating an ASI-AD to provide the necessary subject matter expertise. The guidance and instructions for ensuring compliance with the conditions and limitations of OpSpec B044 should be completed by both the POI and ASI-AD (DSI).

D. Training. The certificate holder applying for OpSpec B044 must provide evidence that their approved training program includes information and instruction for flightcrew members and dispatchers, or persons designated to exercise operational control, on the application of the authorization, and compliance with the conditions and limitations contained in B044. If the approved training program does not contain the necessary information, then the

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

POI must ensure that the certificate holder submits a revised training program for approval that does include this requirement, prior to issuing this OpSpec.

E. Issuing the OpSpec. POIs must refer to the B044 Job Aid contained in the Web-based Operations Safety System (WebOPSS). The Job Aid can be found by clicking on the "Guidance" tab applicable to B044 in WebOPSS. POIs must also review the guidance regarding planned redispatch and rerelease contained in Volume 3, Chapter 25, Section 4. Once the POI reviews the additional guidance and job aid, and establishes that the certificate holder's policies, procedures, and approved training program adequately incorporate and comply with all of the conditions and limitations contained in OpSpec B044, he or she may issue the OpSpec paragraph.

OPSPEC/MSPEC/LOA B045—EXTENDED OVERWATER OPERATIONS USING A SINGLE LONG-RANGE COMMUNICATION SYSTEM (SLRCS).

A. Purpose. OpSpec/MSpec/LOA B045 authorizes a certificate holder/program manager/operator/owner to operate with a functional SLRCS in the specific area of en route operations defined in this OpSpec/MSpec/LOA and then referenced in a certificate holder/program manager/operator/owner's OpSpec/MSpec/LOA B050, Authorized Areas of En Route Operation, Limitations, and Provisions. Title 14 CFR part 1, § 1.1 defines a long-range communication system (LRCS) as: "a system that uses satellite relay, data link, high frequency, or another approved communication system which extends beyond line of sight."

B. Requirements. Certificate holders/program managers/operators/owners conducting operations with an SLRCS must conduct those operations in accordance with the communications equipment requirements of 14 CFR part 91, § 91.511(f); part 121, § 121.351(c); part 125, § 125.203(f); or part 135, § 135.165(g), as applicable. To qualify for this OpSpec/MSpec/LOA, an airplane must be equipped with one operating high frequency (HF) voice radio capable of monitoring and communicating with air traffic control (ATC) during the flight segment any time the airplane is operated beyond the range of ground-based very high frequency (VHF) radio communications equipment.

1) At Least a Single HF Radio is Required. At least one HF is required for long-range communications, even if a certificate holder has an operational satellite voice (SATVOICE) and/or satellite communications (SATCOM) data link system installed.

NOTE: An HF is not required for operations in the Gulf of Mexico Special Provisions Area unless a component of the VHF Extended Range Network (VERN) is inoperative. No allowance is made for operations with a single VHF voice radio in the Gulf of Mexico Special Provisions Area.

2) ATC Requirements. All Air Navigation Service Providers (ANSP) currently require HF voice LRCS. In the airspace applicable to OpSpec B045, operators having been authorized OpSpec/MSpec/LOA A056, Data Link Communications, may utilize Controller-Pilot Data Link Communication (CPDLC) as primary communications, but at least a single HF radio is still required as a backup in case of data link failure. (Refer to the legal interpretation of § 121.99, dated December 6, 2011.)

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) VHF Radio in the Special Provision Area over the Gulf of Mexico. OpSpec B045 authorizes the use of VHF voice communications for certain extended overwater operations in the Gulf of Mexico area above flight level (FL) 180. This area is identified as "The Gulf of Mexico Special Provision Area" and is outlined in subparagraph e of OpSpec B045 (see Figure 3-70, Single Long-Range Communication System Area Map, for a map of the area). Where gaps in VHF radio exist or when VHF communications may be impacted by outages, certificate holders must utilize the SLRCS (HF radio) to maintain communication.

a) Continuous Communications Capability. Certificate holders conducting flights in the oceanic airspace outlined in OpSpec B045 must maintain the continuous ability to communicate with ATC. The "VHF gap" time limits outlined in § 91.511 only apply to part 91K operations.

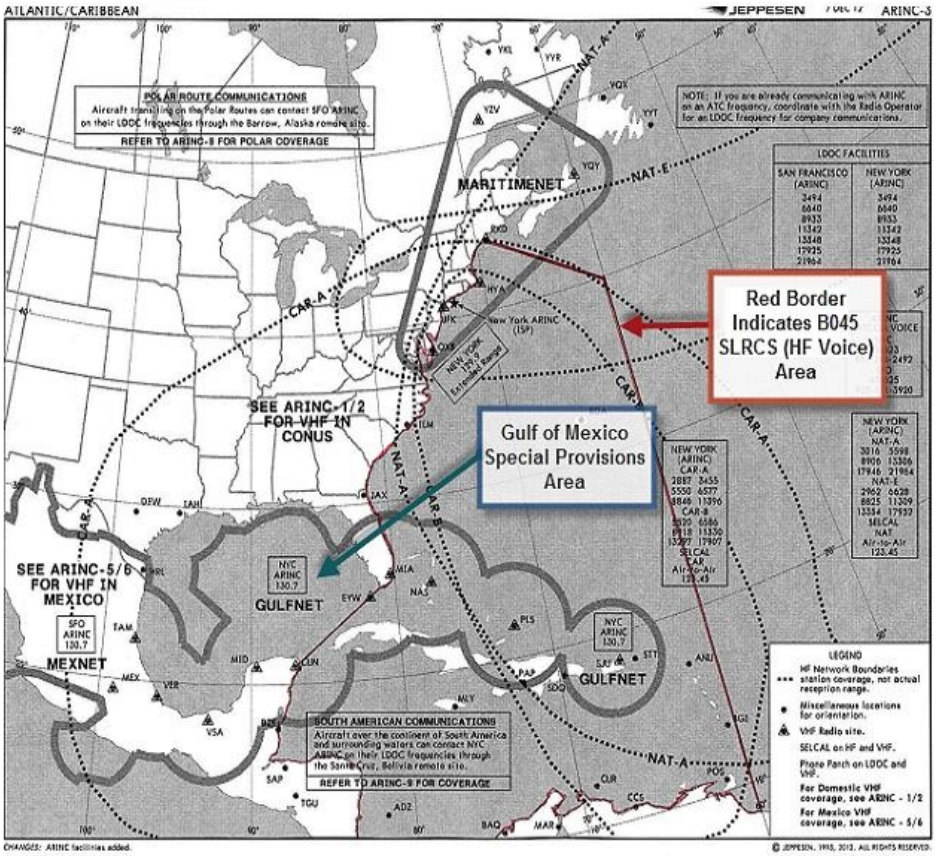
b) Part 121 Operations. Flights conducted in accordance with part 121 operations (other than supplemental all-cargo operations in an airplane with more than two engines) must maintain the continuous ability to communicate with ATC and the certificate holder or the certificate holder's dispatch/flight following facility, depending on the type of operation (domestic, flag, or supplemental).

C. Communications Service Provider (CSP) in Area of Operation. Use of a single HF radio in the area of operation outlined in OpSpec/MSpec/LOA B045 and depicted in Figure 3-70 below will provide communications with ATC and the certificate holder's dispatch center or air operator office through the use of a CSP. New York ARINC (NY ARINC) is the CSP that provides both communications services in the area of operations described in OpSpec/MSpec/LOA B045.

D. SLRCS Area Map. The area map contained in Figure 3-70 depicts where SLRCS can be used in accordance with OpSpec/MSpec/LOA B045. This area excludes North Atlantic High Level Airspace (NAT HLA). The area map generally corresponds to the coordinates listed in the limitations and provisions of OpSpec/MSpec/LOA B045 and should not be used for flight planning purposes. This map is included for visual reference.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-70. Single Long-Range Communication System Area Map



E. Limitations and Provisions. OpSpec/MSpec/LOA B045 contains several limitations and provisions. The limitations and provisions common to parts 91K, 121, 125, and 135 operations are listed below in subparagraphs E through H of this OpSpec paragraph. Principal operations inspectors (POI) must review the actual OpSpec/MSpec/LOA B045 templates for part 91K, 121, 125, 125 subpart M (125M), or 135 operations, as applicable, in the Web-based Operations Safety System (WebOPSS). A POI may not issue OpSpec/MSpec/LOA B045 unless he or she is able to confirm that the certificate holder is able to comply with all of the conditions and limitations of the OpSpec/MSpec/LOA.

1) The SLRCS used must be a unit that employs HF or other approved communication systems that extend beyond line-of-sight.

2) The SLRCS must be fully functional. If the aircraft is equipped with at least two LRCS, the use of the SLRCS must be in accordance with the certificate holder's approved minimum equipment list (MEL).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) The area of operation permitted is defined by the following description and excludes all the NAT HLA:

- Beginning at 44 degrees 47’20” N/67 degrees 00’00” W.
- Hence to 38 degrees 30’00” N/67 degrees 20’00” W.
- Hence to 38 degrees 00’00” N/60 degrees 00’00” W.
- Hence to 27 degrees 00’00” N/60 degrees 00’00” W.
- Hence to 27 degrees 00’00” N/58 degrees 00’00” W.
- Hence to 07 degrees 46’00” N/58 degrees 00’00” W.
- Then northwestward along the adjacent coastline of South America, the eastern coastline of Central America, north to the CUN VHF Omnidirectional Range (VOR), northeast to the EYW VOR, then north along the eastern coastline of the United States to the beginning point.

4) Except as provided in subparagraph e of this OpSpec:

a) The certificate holder monitors the mechanical reliability of the HF communication system. Within the preceding 30 days, if the HF radio system (both HF radios if two are installed) has been placed on the MEL more than twice, the operator is restricted from operating that aircraft in oceanic operations except for one flight to return it to an area of operation that does not require use of HF communications; or

b) The aircraft has an installed and functional SATVOICE communication system.

1. For aircraft that meet the requirements of the network access switch: The certificate holder must include the appropriate SATVOICE communication system code in item 10A and six-character hexadecimal code in item 18 of the Air Traffic Service (ATS) Flight Plan (FPL).

2. For aircraft that do not meet the requirements of the network access switch: The certificate holder must include the appropriate SATVOICE communication system code in item 10A of the ATS FPL. Additionally, the ANSP must be provided the aircraft-specific phone number for each aircraft.

NOTE: Iridium is currently testing network access switch capability for its customers. When this becomes readily available, the operators will be required to make the necessary software changes to the aircraft and train the appropriate personnel on the new procedures.

3. Direct communication with the controller shall be limited to emergency and non-normal conditions. Normal and routine SATVOICE communication shall be directed to the ANSP for the area of operations (ARINC) in which the aircraft is operating.

4. The flightcrew must have the continued ability to comply with International Civil Aviation Organization (ICAO) Annex 2, Rules of the Air, communication requirements.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

5) Prior to entering oceanic airspace, the pilot in command (PIC) must perform a functional check on the SLRCS HF and SATVOICE backup, if operating under the provision of subparagraph 4)b) above, to verify its functionality.

6) No person may allow the flight to enter oceanic airspace unless:

a) Rapid, and reliable two-way communication can be maintained with the ATC facility controlling the airspace.

b) For part 121 domestic or flag operations, reliable and rapid two-way voice communications between the aircraft and the appropriate dispatch center can be maintained in accordance with § 121.99.

c) For part 121 supplemental operations, reliable and rapid two-way voice communication between the aircraft and the certificate holder can be maintained in accordance with § 121.122.

7) Part 91K operations only: When used in conjunction with MSpec B054, Class II Navigation Using Single Long-Range Navigation System (S-LRNS), the area of operation with a SLRCS is limited to 30 minutes beyond the range of ATC VHF coverage.

F. Limitations and Provisions Governing the Special Provisions Area over the Gulf of Mexico. Communications with ATC facilities and long-range communications service providers in the Gulf of Mexico are available via VHF voice for operations at and above FL 180.

1) Prior to conducting operations in the Special Provisions Area over the Gulf of Mexico, the aircraft dispatcher (or person designated to exercise operational control for supplemental operations) and the PIC must review the appropriate Notices to Airmen (NOTAM), and verify that there are no reported or anticipated lapses in VHF voice capability for ATS during the period of time in which the flight will be conducted.

2) If at any time during flight two-way VHF voice radio communications cannot be maintained directly with the controlling ATS facility, general purpose communication facilities, such as ARINC, must be used.

3) For part 121 operations, the requirements of §§ 121.99 and 121.122, as applicable, must be met at all times. For the purposes of operational control communication, if a VHF ground station is inoperative, the PIC and aircraft dispatcher must find that communication facilities equal to the inoperative VHF network are available and are in satisfactory operating condition. (Refer to § 121.607(b).)

G. Required Training. Prior to exercising the authority provided by OpSpec/MSpec/LOA B045, the certificate holder/program manager/operator/owner must provide training to its flightcrew members on the application of the authorization contained in OpSpec/MSpec/LOA B045, including all of the limitations, provisions and special provisions contained therein. For part 121 operations, certificate holders/program managers/operators/owners must also provide this training to aircraft dispatchers or persons designated to exercise operational control.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

H. MEL Review. Prior to issuing OpSpec B045, POIs must review the certificate holder's/program manager's/operator's/owner's MEL and ensure that their MEL Operations (O) procedures for the deferral of communications equipment do not conflict with the authorization contained in OpSpec B045.

I. Review by a Special Area of Operation (SAO) Specialist and Aviation Safety Inspector–Aircraft Dispatcher (ASI-AD). Prior to issuing OpSpec B045, the certificate holder's/program manager's/operator's/owner's training program and manual procedures related to OpSpec B045, must be reviewed and concurred with by an SAO specialist. POIs will locate an SAO specialist in the Regional Next Generation Air Transportation System (NextGen) Branch (RNGB). In addition, POIs of certificate holders/program managers/operators/owners who conduct part 121 operations and desire the authority provided by OpSpec B045 must have the certificate holder's/program manager's/operator's/owner's training program, MEL procedures, and manual procedures reviewed/approved by an ASI-AD.

OPSPEC/MSPEC/LOA B046—OPERATIONS IN REDUCED VERTICAL SEPARATION MINIMUM (RVSM) AIRSPACE.

A. Purpose. OpSpec/MSpec/LOA B046 provides general authority for RVSM airspace operations. RVSM airspace authorization is applicable to all 14 CFR part 91/91 subpart K (part 91K) operators and 14 CFR parts 121, 125, and 135 certificate holders that have been, or wish to be authorized to, operate on RVSM route systems. RVSM has been implemented worldwide, including in most oceanic and remote continental airspace. RVSM programs enable 1,000-foot vertical separation to be applied between aircraft at flight level (FL) 290 through FL 410, inclusive. Part 91, §§ 91.180 and 91.706, and part 91 appendix G provide regulatory policy for RVSM programs. The current version of AC 91-85, Authorization of Aircraft and Operators for Flight in Reduced Vertical Separation Minimum (RVSM) Airspace, provides operator guidance for obtaining RVSM authorization.

B. RVSM FIRs and FLs. The FIRs where RVSM may be implemented are listed in part 91 appendix G. The specific FLs where RVSM is implemented within each FIR are published in the Aeronautical Information Publication (AIP) and Notices to Airmen (NOTAM), published by the responsible Air Traffic Service (ATS) provider. Each operator that is authorized for RVSM operations is responsible for verifying those FLs before conducting RVSM operations.

C. Specific Emphasis. Two items have shown to need specific emphasis in RVSM authorizations:

1) Training on the Effect of RVSM on Traffic Alert and Collision Avoidance System (TCAS) Operations. Operators whose aircraft are equipped with TCAS must ensure that pilots are knowledgeable on the effect of RVSM on TCAS operation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) Wake Turbulence Procedures. ATS providers have published procedures to enable pilots to mitigate the effect of wake turbulence in oceanic or domestic airspace where RVSM is applied. Operators must ensure that pilots are knowledgeable on Strategic Lateral Offset Procedures (SLOP) to mitigate the effect of wake turbulence in oceanic and remote airspace.

D. Verification of Aircraft RVSM Eligibility. Aviation safety inspectors (ASI) need to confirm an aircraft's eligibility to conduct RVSM operations. The aircraft engineering and maintenance that are required for an in-service aircraft to be approved for RVSM operations have normally been documented in Service Bulletins (SB) and Aircraft Service Changes. These documents have been developed by aircraft manufacturers and reviewed by the appropriate Aircraft Certification Office (ACO) prior to distribution. Since the initial implementation of RVSM in March 1997, a number of aircraft manufacturers have incorporated RVSM aircraft equipage and altitude-keeping performance requirements into the certification process for production aircraft. In such cases, SBs or Aircraft Service Changes should not be required. If questions arise on the RVSM eligibility, ASIs can contact the Aircraft Engineering Division (AIR-100) or the Flight Technologies and Procedures Division (AFS-400). For RVSM eligibility of in-production or new-production aircraft, Flight Standards inspectors should request that the operator provide them with a copy of one of the following documents:

1) The Airplane Flight Manual (AFM) should contain a statement that the aircraft is eligible for operation in RVSM airspace, or

2) The Type Certificate Data Sheet (TCDS) can specifically describe the avionics configurations and continued airworthiness criteria, or provide reference to FAA-approved documentation in the form of a written report.

E. Evaluating the Operator's Program. The operator should submit the operations program for review. OpSpec/MSpec D092, Airplanes Authorized for Operations in Designated Reduced Vertical Separation Minimum Airspace, must also be issued for RVSM authorization. OpSpec/MSpec D092 lists the aircraft that are authorized for operation in RVSM airspace.

F. OpSpec B050. OpSpec B046 should be listed in the specific areas of operation listed in OpSpec B050 when the operator is granted authorization to conduct RVSM operations in those areas. If an operator has RVSM authorization, the principal operations inspector (POI) must ensure that the differences in procedures for a new area of operation are addressed before adding OpSpec B046 to the new area in OpSpec B050.

G. Further Guidance. For extensive and inclusive guidance and documentation for RVSM authorization, go to the RVSM homepage at: http://www.faa.gov/air_traffic/separation_standards/RVSM/. For other questions, contact your AXX-220 NextGen Special Areas of Operation (SAO) specialist.

OPSPEC B047. DECOMMISSIONED.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC B048—OPERATIONS IN THE VICINITY OF THE HAWAIIAN ISLANDS. OpSpec B048 contains specific operational limitations and provisions for granting an operator deviation authority to conduct sightseeing and air tour operations in the state of Hawaii below 1,500 feet above the surface. Special Federal Aviation Regulation (SFAR) 71, Special Operating Rules for Air Tour Operators in the State of Hawaii, prescribes the operating rules for airplane and helicopter operators to conduct visual flight rules (VFR) sightseeing and air tour operations in Hawaii. This authorization cannot be issued to fractional ownership program managers (14 CFR part 91K).

A. SFAR 71 Procedures Document. Each operator must have a FAA-approved SFAR 71 Procedures Document that contains a minimum of the following:

1) A description of specific sites, transition segments, and overwater segments.

2) The restrictions that apply for operations below 1,000 feet above the surface at specific sites, including height-velocity restrictions and raw terrain descriptions.

3) An identification of designated areas at specific sites or transition segments suitable for an emergency landing in the event of an engine failure.

4) A description of the planned entry to and egress from the approved specific sites.

5) The operator's plan for ensuring that its pilots conducting flights under this authorization will conduct or participate in at least one formal air tour safety meeting each 12 calendar-months, beginning from the commencement of air tour operations, to discuss safety issues and procedures that pilots will follow while conducting operations under SFAR 71. This plan should include:

a) Provisions for the documentation of each pilot's attendance at the air tour safety meetings that must be retained for a minimum of one year or until the training is repeated, whichever is later.

b) The operator's plan for notifying the Honolulu Flight Standards District Office (FSDO) at least 10 days prior to these meetings to give the FAA an opportunity to participate.

B. SFAR 71 Training Program. Each operator must have an FAA-approved SFAR 71 training program that covers at least the following:

1) The provisions and limitations of SFAR 71 and the operator's FAA-approved SFAR 71 Procedures Document.

2) Initial training for each pilot, which includes flight instruction by an authorized company instructor over all site-specific locations for operations being conducted under SFAR 71.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Each pilot in command (PIC) will have passed a 14 CFR part 135, § 135.299 line check, which includes a representative SFAR 71 transition segment and site-specific area conducted by the Administrator or company check pilot.

4) All other applicable limitations and provisions contained in OpSpec B048.

C. Initial Evaluation. The Administrator will conduct an initial evaluation of each company flight instructor over all site-specific locations before authorizing the instructor to conduct flight instruction for operations being conducted under SFAR 71.

D. Pilot Requirements. Each pilot using the provisions of this authorization who is conducting sightseeing operations under § 135.1(c) will be knowledgeable of SFAR 71 and operate in accordance with the provisions and limitations of OpSpec B048. Initially, and thereafter annually, each pilot must satisfactorily complete both knowledge and flight tests administered by an FAA aviation safety inspector (ASI) qualified to perform this function.

E. Additional Limitations and Provisions. The principal operations inspector (POI) has the option of adding additional limitations and provisions for specific Hawaiian Islands in subparagraph e of OpSpec B048 without going through the nonstandard paragraph processing. If this feature is not required, the POI must not leave the selection blank but enter N/A in place of any additional limitations and provisions.

F. OpSpec B050. OpSpec B050 must refer to OpSpec B048, as applicable.

G. OpSpec A005. Because this OpSpec B048 authorizes a deviation to SFAR 71, it must be listed in OpSpec A005. It should be recorded as “SFAR 71 section 6” with the statement in the remarks column: “Ops below 1,500 feet AGL.”

OPSPEC B049—OPERATIONS IN THE GRAND CANYON NATIONAL PARK SPECIAL FLIGHT RULES AREA.

A. Purpose. OpSpec B049 contains specific operational limitations and provisions for granting an air carrier the authority for air tour operations in the Grand Canyon National Park-Special Flight Rules Area (GCNP-SFRA). The current edition of the Grand Canyon National Park Special Flight Rules Area (GCNP SFRA) Procedures Manual outlines the procedures for how to establish the authorization. This manual may be obtained from the Nevada Flight Standards District Office (FSDO). The Nevada FSDO will also provide the principal operations inspector (POI) with a memorandum outlining the process for authorizing air tour operations in the GCNP-SFRA. This authorization cannot be issued to fractional ownership program managers (14 CFR part 91K).

B. Tours Per Year. In accordance with 14 CFR part 93, § 93.319(a), no operator may conduct a greater number of commercial air tours per calendar-year than the number of allocations appearing on the operator’s OpSpec B049, unless excepted by regulation or by the Quiet Technology (QT) seasonal relief incentive delineated in subparagraph 4 below. If an exemption is granted, this number should be altered accordingly in OpSpec B049 and the exemption listed in OpSpec A005. Each commercial air tour operator operating in the GCNP-SFRA is permitted to operate a certain fixed number of air tours per calendar-year.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) No operator will receive a greater number of allocations than the number of commercial air tours conducted by the operator in the GCNP-SFRA and reported to the FAA during the period beginning May 1, 1997, and ending April 30, 1998 (as per § 93.319(b)).

2) Allocations will only be assigned to operators who reported air tours in the GCNP-SFRA.

3) An operator must use one allocation for each flight that is a commercial air tour, unless excepted by regulation or by the QT seasonal relief incentive for the Dragon and/or Zuni Point Corridors delineated in subparagraph 4).

4) Operators who reported commercial air tours in the Dragon and/or Zuni Point Corridors receive specific allocations for these corridors. These Dragon and/or Zuni Point Corridor allocations are included as a part of the total allocations designated for each operator, if appropriate. The maximum authorized commercial air tours conducted in the Dragon and/or Zuni Point Corridors may be increased by an amount not to exceed the number of flights conducted with authorized QT aircraft within the QT incentive period shown on OpSpec B049.

5) An operator may use allocations designated for the Dragon and/or Zuni Point Corridors outside of those areas, but may not use allocations not specifically designated for the Dragon and/or Zuni Point Corridors within the Dragon and/or Zuni Point Corridors.

6) An operator who meets the requirements for commercial Special Flight Rules Area (SFRA) operations and operates in conformance with its GCNP-SFRA OpSpecs is not required to use a commercial air tour allocation for each commercial air tour flight in the GCNP-SFRA if all the following conditions are met:

a) The operator has a written contract with the Hualapai Indian Nation granting the operator a trespass permit and specifying the maximum number of flights to be permitted to land at Grand Canyon West Airport and at other sites located in the vicinity of that airport.

b) The operator operates in compliance with that contract.

c) The operator has a valid OpSpec B049 that authorizes the operator to conduct the operations specified in the contract with the Hualapai Indian Nation and specifically approves the number of operations that may transit the GCNP-SFRA under this exception.

7) Operators who have previously conducted commercial air tours in the GCNP-SFRA may continue to do so without an initial allocation if they did not receive an initial allocation in 1999 or 2000 for one of the following reasons:

a) The operator conducted commercial air tours at or above 14,500 feet mean sea level (MSL), but below 18,000 feet MSL, and was not required to report during the base year. The operator does not require an allocation to continue to conduct air tours at those altitudes.

b) The operator conducted commercial air tours in the area affected by the eastward shift of the SFRA boundaries and was not required to report during the base year.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

The operator does not require an allocation to continue operating on its specified routes in the area bounded by 111º42” W. longitude and 111º36” W. longitude.

c) This exception does not include operation in the Zuni Point Corridor.

C. Commercial Air Tour Operator Flight Reporting Requirements. In accordance with § 93.325, each operator conducting commercial air tours within the GCNP-SFRA will submit in writing, within 30 days of the close of each calendar-quarter, the total number of commercial air tours conducted within the GCNP-SFRA during that quarter.

1) All air tour operators operating within the GCNP-SFRA must use the approved reporting template (Office of Management and Budget (OMB) Control Number 2120-0653).

2) The quarterly reports must be filed with the Nevada FSDO via email at GrandCanyonAirData@faa.gov. The operator should forward a copy of this report to their assigned Grand Canyon inspector.

a) The reporting template contains information on completing the form with examples of what is expected.

b) The reporting template can be obtained by contacting the Western-Pacific Region Special Programs Office (AWP-1SP) via email at GrandCanyonAirData@faa.gov.

c) The template contains the following information required by § 93.325(a) and (b):

- Make and model of aircraft;
- Identification number (registration number) for each aircraft;
- Departure airport for each segment flown;
- Departure date;
- Departure time using universal coordinated time (UTC), as applicable for each segment flown;
- Type of operation; and
- Route(s) flown.

d) The Nevada FSDO will communicate any change in the current operational status or operating allocations of any Grand Canyon operator to AWP-1SP.

e) The Nevada FSDO will notify AWP-1SP of any new entrants in the GCNP-SFRA and will provide the following information for each:

- Operator name.
- Designator.
- Primary point of contact (POC):
  1. Phone number.
  2. Email address.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

D. Maximum Number of Allocations. The maximum number of allocations for the Dragon and/or Zuni Point Corridors and the maximum number of total allocations for the GCNP-SFRA must be listed in OpSpec B049 subparagraph b(2).

1) If the certificate holder is authorized to conduct the operations specified in a contract with the Hualapai Indian Nation for a specific number of operations that may transit the GCNP-SFRA under the exception of § 93.319(f), the number of operations must be indicated in OpSpec B049 subparagraph b(3).

2) Refer to the OpSpecs job aid in the Web-based Operations Safety System (WebOPSS) in association with OpSpec B049 for examples.

E. Curfew Limitations. As appropriate, the operator must comply with the curfew limitations of § 93.317, which reads, "Unless otherwise authorized by the Flight Standards District Office, no person may conduct a commercial Special Flight Rules Area operation in the Dragon and Zuni Point corridors during the following flight-free periods:

a) Summer season (May 1-September 30)-6 p.m. to 8 a.m. daily; and

b) Winter season (October 1-April 30)-5 p.m. to 9 a.m. daily."

F. OpSpec B050. OpSpec B049 must be referenced in OpSpec B050, as applicable.

OPSPEC/MSPEC B050—AUTHORIZED AREAS OF EN ROUTE OPERATIONS, LIMITATIONS, AND PROVISIONS. This section provides operators and principal operations inspectors (POI) with detailed information on the Web-based Operations Safety System (WebOPSS) functionality with regard to the issuance of B050:

- Subparagraph A—Provides general overview.
- Subparagraph B—Describes process steps for the development of B050.
- Subparagraph C—Includes a list and definitions of the standard authorized areas as displayed in the WebOPSS.
- Subparagraph D—Extended Operations (ETOPS) Areas of Operation/B050 interface.
- Subparagraph E—Guidance for adding areas with limited FAA oversight.

A. Purpose. B050 must specify only the areas of en route operation (or individual routes that have specific limitations or procedures associated with the route) for which the operator is authorized to conduct under 14 CFR parts 91K, 121, 121/135, 125 (including the Letter of Deviation Authority (LODA) 125 operators), and 135 operations. B050 must include all areas of en route operation where the operator conducts scheduled and nonscheduled operations. B050 prohibits operations in areas not listed. It is important to consider those areas where the operator may conduct nonscheduled operations. When amending B050, the POI should review the guidance for OpSpec/MSpec/LOA B450, Sensitive International Areas, to determine if B450 needs to be updated as well.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. B050 Process Steps. To prepare B050 for issuance, the POI or operator must accomplish the following:

1) Coordinate with the operator to prepare the "list of the areas of en route operation." The POI should work directly with the operator when preparing the list. This is particularly important when extensive international operations are involved. Operators requesting approval for special areas of operation (e.g., North Atlantic High Level Airspace (NAT HLA), area of magnetic unreliability (AMU), or initial Class II Navigation authorization) must consult a Special Areas of Operation (SAO) specialist, formerly navigation specialist, as required by policy in this order.

2) Obtain the "list of areas of en route operation." The WebOPSS guidance contains detailed information on geographical areas.

3) Select the individual areas of en route operation for authorization. Paragraph C contains the areas listing. All selected areas must be contiguous. For example, if "the 48 contiguous United States and the District of Columbia" and "the State of Hawaii" are selected and operations will be authorized between those areas, make an appropriate selection for the Pacific Ocean. The WebOPSS application approves all of the selected countries and/or territories within the authorized area by default. WebOPSS allows countries within the selected authorized area to be included, excluded, or overfly. Explanations of these selections are below:

a) None (Default) is the preferred method of selection. This selection allows selection of the entire prescribed authorized area of en route operations. In some cases, FAA Headquarters (HQ) unilaterally restricts some countries for the None (Default) selection. An example is Asia—Excluding North Korea, Special Federal Aviation Regulation (SFAR) 79. In this example, North Korea is restricted from the selections of Include, Exclude, or Overflight. In the case where an SFAR is applicable, the POI must inform the carrier. HQ will remove the SFAR country from its current authorized area and develop a new selectable authorized area of en route operation that addresses the SFAR. HQ will issue a notice announcing the change.

b) Include is used in the rare case when the operator selects an authorized geographic area, but only one or two countries are approved for flight operations over or within those countries in the authorized area. For part 121 scheduled operators, OpSpec C070 must list the authorized airports. Use Include to authorize a geographic area where the operator has completed validation tests for the specific country, but not the entire authorized area of en route operations. This allows the operator who has limited exposure to a complicated navigation area to operate into a specific country in which it has demonstrated competency by validation testing. For example, an operator is authorized operations into Hong Kong, Macao, or Taiwan, but not mainland China. Both altitude measurement standards and Reduced Vertical Separation Minimum (RVSM) procedures are different in these locations from the rest of China.

c) Exclude is used when an authorized geographic area includes a country or territory where restrictions (e.g., economic sanctions) or Notices to Airmen (NOTAM) regarding potentially hazardous conditions exist. Reasons for exclusion can be, but are not limited to, NOTAMs, politically sensitive areas, operator preference, or operational capabilities. An example of exclusion would be Yemen. Yemen would be selected as Exclude from the area of

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

the Middle East—Excluding Iraq. Note that Iraq is already excluded from the Middle East due to SFAR 77.

d) Overflight is used when a geographic area is authorized, but selected countries are only authorized for overflight operations. Similar to Exclude, use Overflight when an operator has authorization to overfly a geographic area where restrictions such as economic sanctions or NOTAMs regarding potentially hazardous conditions exist. Reasons for overflight can be, but are not limited to, NOTAMs, politically sensitive areas, operator preference, or operational capabilities. For example, to authorize overflight of Cuba, an operator would be authorized Caribbean Sea—Including the Islands/Nations and the Havana Flight Information Region (FIR), with Cuba selected for Overflight.

4) The operator or POI should use B050 subparagraph b Table 2, Limitations, Provisions, and Special Requirements, for any special operational considerations (see Table 3-15). Each limitation, provision, or special requirement number must be associated with the applicable authorized area of B050 in the Notes Reference # column of Table 1. The following are examples of Limitations, Provisions, and Special Requirements:

a) Limitation—Specific route approval required to maintain compliance with OpSpec A013, Operations Without Certain Emergency Equipment. Specific route approval would avoid operations beyond 162 nautical miles from shoreline in the Gulf of Mexico and the Caribbean.

b) Provision—Authorization to land at Guantanamo Bay NAS.

c) Special Requirement—If an operator has multiple engine/airframe combinations approved for ETOPS, and not all engine/airframe combinations are authorized in all areas listed in B050, the operator should list the specific engine/airframe combination as a note reference.

5) WebOPSS will auto-fill required paragraphs in B050 Table 1, Reference Paragraphs, column for each area of en route operation by CFR part. For example, for parts 121 and 135, WebOPSS will auto-fill B031 and B032. In part 135, B032 does not apply to visual flight rules (VFR)-only operations; therefore, it must be manually deleted for those types of operations.

6) In certain areas of en route operation, reference paragraphs are mandatory (Central East Pacific (CEP), B037; North Pacific (NOPAC), B038; NAT HLA, B039; and areas of magnetic unreliability (AMU), B040). These required paragraphs have been preloaded as reference paragraphs in B050. The POI must not manually delete these mandatory reference paragraphs when the operator is authorized to operate in these areas. The certificate holder must meet the requirements of those authorizations, and B050 must include references to those authorizations.

7) The operator or POI will select the mandatory paragraphs referenced in each area that is applicable to the CFR part. The guidance for these paragraphs is below. Evaluate and select optional paragraphs that apply to the operation in that area of operation. It is important to note that initial authorization for optional paragraphs must be coordinated with a specialist, as

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

indicated. Upon receiving initial approval, the POI, in coordination with a navigation specialist and/or ETOPS specialist, is responsible to determine whether further validation is necessary when authorizing additional areas.

a) For example: an operator obtains ETOPS authority for a B-767 operation in Canada and the North Atlantic. The operator will add B342 in the reference paragraph in Canada and the NAT HLA. The operator then requests to fly the same aircraft, B-767, from the West Coast to Hawaii. This requires the operator to validate this operation before placing B342 in the Central and South Pacific airspace in the reference paragraphs. The POI should consult the AFS-200 ETOPS specialist when determining whether to include these reference paragraphs.

b) Manually add other applicable optional reference paragraphs to a specific area of en route operation. These other reference paragraphs either specify a requirement such as long-range navigation (LRN) equipment or grant a specific authorization such as use of Area Navigation (RNAV) equipment for Class I navigation. The POI must determine which reference paragraphs are pertinent to each area of en route operation. These other reference paragraphs may include, but are not limited to, the following:

- B034—IFR Class I Terminal and En Route Navigation Using Area Navigation Systems.
- B035—Class I Navigation in the U.S. Class A Airspace using Area Navigation or Long-Range Navigation Systems.
- B036—Oceanic and Remote Continental Navigation Using Multiple Long-Range Navigation Systems (LRNS).
- B037—Operations in Central East Pacific (CEP) Airspace.
- B038—North Pacific (NOPAC) Operations.
- B039—Operations in North Atlantic High Level Airspace.
- B040—Operations in Areas of Magnetic Unreliability.
- B041—North Atlantic Operations with Two-Engine Airplanes Under Part 121.
- B043—Special Fuel Reserves in International Operations.
- B044—Planned Redispatch or Rerelease En Route.
- B045—Extended Overwater Operations Using a Single Long-Range Communications System.
- B046—Operations in Reduced Vertical Separation Minimum (RVSM) Airspace.
- B054—Class II Navigation Using Single Long-Range Navigation System (S-LRNS).
- B055—North Polar Operations.
- B059—Canadian MNPS Airspace. (B059 is only issued to part 135 operators.)
- B342—Extended Operations (ETOPS) with Two-Engine Airplanes Under Part 121.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- B343—Performance-Based Contingency Fuel Requirements for Flag Operations.
- B344—Extended Operations (ETOPS) in Passenger-Carrying Airplanes with More Than Two Engines Under Part 121.

8) After the reference paragraphs are either deleted or added, any special requirement pertinent to an area of en route operation or to a particular aircraft operating within the area must be prepared and added to B050. The recommended method for accomplishing this is the use of the B050 Table 2, Limitations, Provisions, and Special Requirements. In the Notes Reference # column, notes should be consecutively and uniquely numbered. After each unique number in the Note Reference # column, the applicable limitation, provision, or special requirements must be described in the Limitations, Provisions, and Special Requirements column. The note reference number must also be entered in the Note Reference # column in Table 1 adjacent to each area of en route operation to which the note applies. The following illustration is an example of how special requirements can be annotated. For the purpose of illustration, the example presumes an operator is authorized to conduct operations under part 121.

Table 3-15. Example of Special Requirements Annotations for a Part 121 Operator

Authorized Areas of En Route Operation	Reference Paragraphs	Note Reference #
Atlantic Ocean—West Atlantic Route System (WATRS)—The North Atlantic Ocean west of the western boundary of NAT HLA to include the San Juan control area (CTA)/FIR and the Atlantic portion of the Miami Oceanic CTA	A056, B031, B032, B034, B036, B045, B046, B054, B342	3, 7

Note Reference #	Limitations, Provisions, and Special Requirements
3	B-777—CPDLC Operations for New York Oceanic, Gander and Shanwick FIRs only
7	ETOPS—B-757-212 P/W 2037 engines only

C. Listing and Explanation of Authorized Areas of En Route Operation. The authorized areas of en route operations below are the standard selections from WebOPSS. The composition of each authorized area of operations is contained in the Authorized Areas Country Listing document located in the WebOPSS guidance area associated with B050. The optional paragraphs below may not include all paragraphs. The POI must consult with FAA HQ for applicability of nonstandard paragraphs in B050. The list below does not include certain Part A OpSpecs. The POI is responsible to ensure that any Part A paragraphs that reference B050 are listed in the Reference Paragraph column of the applicable area of operation. Certain optional paragraphs will require consultation with one or more of the following: navigation specialist,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

dispatch inspector, ETOPS specialist. The optional reference paragraphs that require consultation with a specialist will be identified by an asterisk (*). Examples include B044 (Redispatch), B043 (Special Fuel Reserves), initial Class II navigation (B036 or B054), B055 (Polar Operations), and B342 (ETOPS). Each area listed below contains a short explanation of the geographic area followed by a standard list of considerations for each area selected. The inspector should ensure that the required paragraphs are issued to the operator. The operator may require optional paragraphs depending on its complexity and type of operation.

1) Africa—Ethiopia, SFAR 87. Select this area of operation when an operator plans operations within the territory or airspace of Ethiopia. The operator must comply with SFAR 87.

a) HQ Approval: Yes. Contact AFS-200.

b) Navigation Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, and B343*.

NOTE: B036 is not required for operations within Ethiopia. B343 requires HQ approval.

2) Africa—Excluding Ethiopia and Somalia. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Africa, except Ethiopia and Somalia.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, B342*, and B343*.

NOTE: B036 not required for operations within Africa. B342 and B343 require HQ approval.

3) Africa—Somalia, SFAR 107. Select this area of operation when an operator plans operations within the territory or airspace of Somalia. The operator must comply with SFAR 107.

a) HQ Approval: Yes. Contact AFS-200.

b) SAO Specialist Coordination: No.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, and B343*.

NOTE: B036 is not required for operations within Somalia. B343 requires HQ approval.

4) Asia—Excluding North Korea. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Asia, except North Korea.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, B342*, and B343*.

NOTE: RVSM in China (Metric) differs from International Civil Aviation Organization (ICAO) standards. B342 and B343 require HQ approval.

5) Asia—North Korea SFAR 79 (Portions of Pyongyang FIR). Select this area of operation when an operator plans operations within the territory or airspace of North Korea. The operator must comply with SFAR 79.

a) HQ Approval: Yes. Contact AFS-200.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, and B343*.

NOTE: B343 requires HQ approval.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

6) Atlantic Ocean—The Atlantic Ocean Islands/Nations. Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Atlantic Ocean bound in the north by 78° N. latitude and to the south by 67° S. latitude.

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (Refer to the special notes below.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B039*, B043*, B044*, B046, and B343*.

NOTE: Selection of this area will require authorization of at least an additional Atlantic Ocean navigational area. The additional navigational area may require coordination with an SAO specialist. OpSpec B343 requires HQ approval.

7) Atlantic Ocean—The North Atlantic Ocean Specified as "Special Contingency Routings" in the Current Edition of the U.S. International Flight Information Manual (IFIM). Select this area of operation when an operator plans operations within the airspace of the Special Contingency Routings defined in the current edition of the U.S. IFIM.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B036*, B039*, B041*, B043*, B044*, B046, B342*, and B343*.

NOTE: B039 is required unless the operator intends to operate at altitudes above or below NAT HLA. B342 and B343 require HQ approval.

8) Atlantic Ocean—Atlantic Ocean at Flight Levels Above and Below NAT HLA Boundaries. Select this area of operation when an operator plans operations within the airspace of the Atlantic Ocean when the operator is not approved to operate in the exclusionary NAT HLA.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*.

e) Optional Paragraphs: B032, B034, B041*, B043*, B044*, B046, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

9) Atlantic Ocean—Atlantic Ocean NAT HLA. Select this area of operation when an operator plans operations within the exclusionary NAT HLA.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, B039*, and B046.

e) Optional Paragraphs: B034, B041, B043*, B044*, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

10) Atlantic Ocean—Atlantic Ocean South of New York and Santa Maria Oceanic FIRs. Select this area of operation when an operator plans operations within the airspace south of the NAT HLA to the South Polar region (67° S.).

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*.

e) Optional Paragraphs: B034, B041, B043*, B046, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

11) Atlantic Ocean—WATRS: The North Atlantic Ocean West of the Western Boundary of the NAT HLA to Include the San Juan CTA/FIR and the Atlantic Portion of the Miami Oceanic CTA. Select this area of operation when an operator plans operations within the airspace as defined.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Required Paragraphs: B031, B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B036, B043*, B044*, B045*, B046, B054*, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

12) Australia and New Zealand. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Australia and New Zealand.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, B342*, and B343*.

NOTE: For operations between Australia and New Zealand, the operator must select Pacific Ocean—The Central and South Pacific Ocean. The possibility of remote or oceanic operations in this area may require B036; therefore, SAO specialist coordination is required. B342 and B343 require HQ approval.

13) Canada—Canadian Minimum Navigation Performance Specification (MNPS) Airspace. Select this area of operation when an operator plans operations within the Canadian MNPS airspace as defined in the Canadian Aeronautical Information Publication (AIP).

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, and B059* (required for part 135).

e) Optional Paragraphs: A353, B032, B034, B040*, B043*, B044*, B046, B055*, B342*, B343*, and B344*.

NOTE: Operations north of 78° N. latitude require selection of the "Polar Areas—North Polar Area—North of 78 degrees North Latitude to the North Pole" area. Operations north of 68° N. latitude may require AMU authorization. A353, B342, B343, and B344 require HQ approval.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

14) Canada—Excluding Canadian MNPS Airspace. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area defined in the Canadian AIP as the Southern Domestic Airspace.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: A353, B032, B034, B036*, B043*, B044*, B046, B342*, and B343*.

NOTE: A353, B342, and B343 require HQ approval.

15) Caribbean Sea—Including the Islands/Nations and the Havana FIR. Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Caribbean Sea and the Havana FIR.

a) HQ Approval: No.

b) SAO Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, and B054*.

NOTE: Initial Class II navigation (B036 or B054) requests require coordination with an SAO specialist.

16) Caribbean Sea—Including the Islands/Nations, Excluding the Havana FIR. Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Caribbean Sea, excluding approval for operations within the territory or airspace of Cuba and the Havana FIR.

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, and B054*.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: Initial Class II navigation (B036 or B054) requests require coordination with an SAO specialist.

17) Central America. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Central America.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, and B343*.

NOTE: B343 requires HQ approval.

18) China. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of the People's Republic of China, Hong Kong, Macau, and Taiwan.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, and B343*.

NOTE: RVSM (B046) for the People's Republic of China authorization requires coordination with an SAO specialist. B343 requires HQ approval.

19) Europe—And the Mediterranean. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Europe and the Mediterranean Sea.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, and B450.

e) Optional Paragraphs: B034, B043*, B044*, B046, and B343*.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: B343 requires HQ approval.

20) Gulf of Mexico. Select this area of operation when an operator plans operations within the airspace of the Gulf of Mexico.

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, B054*, and B343*.

NOTE: B036 or B054 may be required based on operator's complexity. Consult an SAO specialist for initial Class II navigation authorization. B343 requires HQ approval.

21) Indian Ocean—Including the Islands/Nations. Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Indian Ocean to 67° S. latitude, including the Bay of Bengal and the Arabian Sea.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, and B450.

e) Optional Paragraphs: B034, B043*, B044*, B046, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

22) Mexico. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of Mexico.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, and B343*.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: B343 requires HQ approval.

23) Middle East—Excluding Iraq. Select this area of operation when an operator plans operations within the territory or airspace of the geographic area of the Middle East, except for Iraq.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, and B343*.

NOTE: B036 is required for operations over Afghanistan. B343 requires HQ approval.

24) Middle East—Iraq SFAR 77. Select this area of operation when an operator plans operations within the territory or airspace of Iraq. The operator must comply with SFAR 77.

a) HQ Approval: Yes. Contact AFS-200.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: A530, B032, B034, B036*, B043*, B044*, B046, and B343*.

f) Special Notes. A530 (SFAR 77, paragraph 3) and B343 require HQ approval.

25) Pacific Ocean—The North Pacific Ocean. Select this area of operation when an operator plans operations within the airspace north of 40° N. latitude, bound in the west by Japan's Fukuoka FIR (inclusive), bound in the east by the North American coastline to include the Anchorage Artic CTA/FIR, and the NOPAC Air Traffic Services (ATS) routes and the Pacific Organized Track System (PACOTS).

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, B038*, and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, B342*, B343*, and B344*.

NOTE: Initial Class II approval requires consultation with an SAO specialist. B342, B343, and B344 require HQ approval.

26) Pacific Ocean—The Central and South Pacific Ocean. Select this area of operation when an operator plans operations within the airspace of the Central and South Pacific Ocean south of 40° N. latitude to 67° S. latitude, excluding the Fukuoka FIR (Japan's FIR).

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, and B037*.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, B342*, B343*, and B344*.

NOTE: Initial Class II approval requires consultation with an SAO specialist. B342, B343, and B344 require HQ approval.

27) Pacific Ocean—The Pacific Ocean Islands/Nations. Select this area of operation when an operator plans operations within the territory or airspace of the islands and nations in the Pacific Ocean.

a) HQ Approval: No.

b) SAO Specialist Coordination: No. (See special notes.)

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B043*, B044*, B046, B342*, and B343*.

NOTE: Selection of this area will require either the "Pacific Ocean—The North Pacific Ocean" or the "Pacific Ocean—The Central and South Pacific Ocean" navigational area authorization. The additional navigational area may require coordination with an SAO specialist. State of Hawaii operations are a separate area of authorization. B343 require HQ approval.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

28) Polar Areas—South Polar Area 67° South Latitude to the South Pole Inclusive. Select this area of operation when an operator plans operations within the airspace of the South Polar area 67° S. latitude to the South Pole.

a) HQ Approval: Yes. (See special notes.)

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, B040*, and B450.

e) Optional Paragraphs: B034, B044*, B342*, and B344*.

NOTE: Operators requesting South Polar area approval must give 90-day advanced notification to AFS-200 and the Flight Technologies and Procedures Division (AFS-400). B342 and B344 require HQ approval.

29) Polar Areas—North Polar Area North of 78° North Latitude to the North Pole. Select this area of operation when an operator is planning operations within the airspace above 78° N. latitude to the North Pole.

a) HQ Approval: No.

b) SAO Specialist Coordination: Yes.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), B036*, B040*, B055*, and B450.

e) Optional Paragraphs: B032, B034, B039, B043*, B044*, B046, B342*, B343*, and B344*.

NOTE: Approval for operations in the Canadian MNPS may also be required. B342, B343, and B344 require HQ approval.

30) Russia, Mongolia, and the Commonwealth of Independent States (CIS) Nations. Select this area of operation when an operator is planning operations within the territory or airspace of the geographic area of Russia, Mongolia, and the other CIS nations, including the ocean areas north of the Russia coastline defined as south of 78° N. latitude bound in the east by the intersection of the Arctic Circle and the International Date Line (approximately 170°/180° meridian), and bound in the west by 30° E. longitude.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B342*, B343*, and B344*.

NOTE: B342, B343, and B344 require HQ approval.

31) South America. Select this area of operation when planning operations within the territory or airspace of the geographic area of South America.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for part 121 and 125), and B450.

e) Optional Paragraphs: B032, B034, B036*, B043*, B044*, B046, B342*, and B343*.

NOTE: B342 and B343 require HQ approval.

32) USA—The 48 Contiguous United States and the District of Columbia. Select this area of operation when an operator is planning operations within the territory or airspace of the 48 contiguous United States and the District of Columbia.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B035, and B046.

33) USA—The State of Alaska. Select this area of operation when an operator is planning operations within the territory or airspace of the State of Alaska.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Required Paragraphs: B031 and B032 (required for parts 121 and 125).

e) Optional Paragraphs: A052, B032, B034, B035, B036, B046, B342, B343, and B344.

NOTE: B342, B343, and B344 require HQ approval.

34) USA—The State of Hawaii. Select this area of operation when an operator is planning operations within the territory or airspace of the State of Hawaii.

a) HQ Approval: No.

b) SAO Specialist Coordination: No.

c) Applicable 14 CFR Parts: 91K, 121, 121/135, 125, 125M, and 135.

d) Required Paragraphs: B031, B032 (required for parts 121 and 125).

e) Optional Paragraphs: B032, B034, B035, B036*, and B046.

D. ETOPS Areas of Operation/B050 Interface. Certain geographic areas require ETOPS authority based on the availability of adequate airports. Most ETOPS authorizations require validation testing. For ETOPS validation requirements, see Volume 3, Chapter 29, Section 8 and Volume 4, Chapter 6, Section 2. Table 3-15B below lists the ETOPS areas of operations and correlates them to the authorized areas in B050. Use the table below to determine ETOPS validation requirements for a specific ETOPS area of operation with respect to an OpSpec B050 authorized area of en route operations.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Table 3-15B. ETOPS Validation Areas and Corresponding B050 Authorized Areas

ETOPS Area of Operations	B050 Authorized Area(s)	Validation Flights Required	Comments
North Polar	Polar Areas - North Polar Area - North of 78° North Latitude to the North Pole	Yes	None
South Polar	Polar Areas - South Polar Area - 67° South Latitude to the South Pole inclusive	Yes	None
North Atlantic	Atlantic Ocean - The North Atlantic Ocean specified as “Special Contingency Routings” in the current edition of the U.S. IFIM Atlantic Ocean - Atlantic Ocean at flight levels above and below NAT HLA boundaries Atlantic Ocean - Atlantic Ocean NAT HLA	Yes	None
WATRS	Atlantic Ocean - WATRS - The North Atlantic Ocean west of the western boundary of NAT HLA to include the San Juan CTA/FIR and the Atlantic portion of the Miami Oceanic CTA	Yes	Required for operators whose ETOPS approval is limited to 75-minute ETOPS authority.
South Atlantic	Atlantic Ocean - Atlantic Ocean South of New York and Santa Maria Oceanic FIRs	Yes	None
North Pacific	Pacific Ocean - The North Pacific Ocean - North of 40° North latitude bound in the east by the North American coastline to include the Anchorage Arctic CTA/FIR, and the NOPAC Air Traffic Services (ATS) routes and the Pacific Organized Track System (PACOTS)	Yes	None
Central and South Pacific	Pacific Ocean - The Central and South Pacific Ocean excluding the Fukuoka FIR (Japan’s FIR)	Yes	None
Indian Ocean	Indian Ocean - Including the Islands/Nations	Yes	None
Russia, Far East	Russia, Mongolia, and the CIS Nations	Yes	None
South China Sea	Asia - Excluding North Korea	Yes	None

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

ETOPS Area of Operations	B050 Authorized Area(s)	Validation Flights Required	Comments
Africa	Africa - Excluding Ethiopia and Somalia	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Alaska	USA - The State of Alaska	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Australia	Australia and New Zealand	May be required	Based upon routing and airspace requirements. Consult AFS-200.
Northern Canada	Canada - Excluding Canadian MNPS Airspace Canada - Canadian MNPS Airspace	May be required	Based upon routing and airspace requirements. Consult AFS-200.
South America	South America	May be required	Based upon routing and airspace requirements. Consult AFS-200.

E. Adding Areas with Limited FAA Oversight. When a certificate holder submits a request to add a location to OpSpec B050, where limited FAA surveillance and oversight will be possible, principal inspectors (PI) evaluate the systems the certificate holder uses to produce and manage aviation products and services that ensure safety and regulatory compliance before adding the new location. This evaluation should include a comparison of those systems to the basic characteristics of all effective safety systems. These characteristics are embodied in the following attributes:

- Well-defined and well-documented procedures;
- Established risk controls over key procedural steps;
- Process measures to permit effective management;
- Well-defined interfaces; and
- Clear responsibility and authority.

1) Operational control systems vary with the kinds of operations the operator is authorized to conduct; the complexity of the operations; the means of communication; and the people who are involved in preparing for and conducting flights under the operator's system. These functions form the basis for an operational control system that includes the functions of aircraft release, flight locating, and flight following, as applicable. Those functions alone will not satisfy the overall goal of establishing and maintaining an operational control system. PIs must

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

evaluate the operator's operational control system to ensure that the operator complies with the applicable U.S. and foreign regulations. The system must be effective and provide for an adequate level of safety in the actual operations.

2) Each PI will ensure that it is possible to complete work program items at the local or remotely located base of operations, or use the steps (refer to the current edition of FAA Order 1800.56, National Flight Standards Work Program Guidelines, Appendix A) to deviate from the work program. Deviation may include coordination with the operator to relocate aircraft to a suitable location for specific oversight and inspections if operations are authorized and conducted in a location that is not safe for the inspector to travel. This may also include a provision for the operator to establish an adequate level of safety oversight to ensure continued compliance with the regulations and company procedures, etc. If the certificate-holding district office (CHDO) cannot perform onsite surveillance or establish a method to determine an adequate level of safety oversight, then the CHDO should coordinate with its Regional Office (RO) and AFS-200 to explore additional options.

NOTE: Only the certificate holder is responsible to comply with 14 CFR and establish and maintain processes, procedures, and management oversight adequate to ensure regulatory compliance and ultimately safe operations.

3) Certain conditions may preclude the CHDO from exercising an adequate level of oversight and will require the CHDO, through coordination with the RO, to develop special conditions to be included in the OpSpec paragraph. Any nonstandard OpSpec language the CHDO proposes must be coordinated through the RO and approved by AFS-200 before issuance. Following the special conditions, a statement will be included that directs that these special conditions must continue to be met for the authorization to remain in effect. These special conditions would then be clearly communicated to the operator before signing the OpSpec paragraph.

F. Operations in Support of the Military or in Hostile Areas. In addition to the requirements cited for operations conducted in areas of limited FAA oversight, the operator must establish the following procedures before conducting operations outside the United States in support of military operations, or in hostile areas where onsite FAA oversight cannot be accomplished.

1) For operations conducted outside the United States in support of the U.S. military or under a U.S. Government contract, the contracting Federal agency must approve the operator's threat mitigation plan.

2) The operator must ensure all contracts with U.S. Government agencies contain provisions that require the contracting agency to report on an annual basis, or as sooner identified, an annual safety report to the operator and CHDO to ensure the operator immediately corrects all safety issues.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) For operations conducted in hostile areas or in support of military operations, the operator must have an operational risk mitigation program that requires the pilot to contact designated 14 CFR part 119 management personnel for concurrence when the perceived flight risk reaches a specified level, as designated in the operator's risk management program.

4) The operator must establish a flight following program that coordinates the initiation, diversion, and/or termination of all air carrier flights. The operator must train flight following personnel to provide current weather information to the pilot, as well as provide timely information to flightcrews before and during a flight. Part 135 flight following personnel do not need to be certificated dispatchers but must be trained by the operator to read and disseminate aviation weather reports, applicable aircraft performance, maintenance deferrals, and deferral procedures to coordinate information between the flightcrew and part 119 management personnel. Flight followers must be knowledgeable of aviation communication phraseology and communication procedures to allow timely communication to flightcrews.

5) Conduct the flight following program from a location within the United States.

6) All part 119 management personnel, pilots, and flight following personnel must be trained on the operator's threat mitigation plan and operational risk management program.

OPSPEC B051—PART 121 VISUAL FLIGHT RULES LIMITATIONS AND PROVISIONS. (TBD).

OPSPEC B052. TBD.

OPSPEC B053. TBD.

OPSPEC/MSPEC/LOA B054—OCEANIC AND REMOTE AIRSPACE NAVIGATION USING A SINGLE LONG-RANGE NAVIGATION SYSTEM.

A. Purpose. OpSpec/MSpec/LOA B054 is issued to authorize oceanic and remote airspace navigation (hereafter referred to as "oceanic and remote" navigation), as well as Required Navigation Performance (RNP) 10, in airplanes equipped with only a single long-range navigation system (LRNS). RNP 10 operations under B054 are limited to oceanic airspace where any gaps in air traffic control (ATC) surveillance of, and direct communications with, aircraft are acceptably small. The term "Class II" navigation has been replaced with "oceanic and remote airspace navigation," but the parameters which defined "Class II" remain unchanged. The single LRNS associated with the B054 authorization is expected to meet the equipment requirements related to the RNP 10 navigation specification (Nav Spec). An operator may still be eligible for B054 in the event that their LRNS is not RNP 10-compliant. Inspectors should follow the procedures in Volume 3, Chapter 18, Section 2, paragraph 3-713, Procedures for Requesting Nonstandard OpSpec/MSpec/LOA/TSpec Authorizations and Nonstandard Text, to request concurrence from the Flight Technologies and Procedures Division (AFS-400), with an appropriate recommendation from the Regional NextGen Branch (AXX-220) Special Areas of Operations (SAO) specialist, or the International Field Office Management Branch (AFS-54) as applicable, for nonstandard issuance of B054.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Authority.

1) Authority for extended overwater operations in airplanes with less than two LRNSs is provided, for applicable operators, in 14 CFR part 91, § 91.511, part 121, § 121.351, part 125, § 125.203, and part 135, § 135.165.

2) Section 91.511 (applicable to subpart 91F: large airplanes, turbo-jet powered multiengine airplanes, and fractional ownership operations, subpart K) establishes the general limitations on overwater operations with fewer than two LRNSs and establishes an exception from those limitations for operations in the West Atlantic, Caribbean, and Gulf of Mexico. No further exceptions are provided for in § 91.511; hence, operations elsewhere are constrained by the operator's capability to comply with the limitations in § 91.511. Therefore, both the B054 LOA and MSpec do not list geographic coordinates of applicability but rather make reference to the § 91.511 limitations.

3) Based upon the authority granted to the Administrator in §§ 121.351, 125.203, and 135.165 to approve operations with a single LRNS "in certain geographic areas," B054 provides the dimensions of the airspace applicable to operations performed under parts 121, 125, and 135.

C. Applicability. OpSpec/MSpec/LOA B054 applies to operations performed under parts 91, 91K, 121, 125, and 135. Part 91 operators do not require authorization to fly in oceanic and remote airspace (though they do need authorization to fly in North Atlantic High Level Airspace (NAT HLA), via LOA B039). Accordingly, they receive LOA B054 only to authorize RNP 10 operations when equipped with a single LRNS.

D. Requirements.

1) Operators must have installed an LRNS that is approved for use in instrument flight rules (IFR) as a primary means of navigation. The operator's Airplane Flight Manual (AFM) should include a statement indicating the airplane's navigation system meets this criteria. The operator's airplane and operating procedures must also meet the requirements for RNP 10 established 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. Qualification for RNP 10 on the basis of a single LRNS requires the airplane be equipped with an LRNS which determines airplane position either by Global Positioning System (GPS) or inertial navigation.

2) Operators performing RNP 10 operations in airplanes whereby oceanic and remote position is determined solely by GPS must use a fault detection and exclusion (FDE) prediction program. This prediction program is used during flight planning to determine if any gaps in FDE coverage apply to the planned route and expected duration of the flight. The maximum allowable predicted gap in FDE coverage for operations requiring RNP 10 is 34 minutes. AC 90-105 provides further information.

3) Operators must document the operating procedures put into place, as well as the training provided to flightcrew members and those personnel authorized to exercise operational control (i.e., dispatchers, flight followers, and management personnel) to properly plan for and

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

operate flights within the airspace, and observe the limitations prescribed in B054. The operating procedures and training must address responses to a loss of long-range navigation capability. The operator's oceanic and remote operating procedures and training should take into consideration the guidance and recommended practices provided in the current edition of AC 91-70, Oceanic and Remote Airspace Operations. This AC provides extensive cross-references to information important for proper planning and execution of flights in oceanic and remote airspace, in particular practices to prevent or otherwise detect and mitigate navigation errors due to operational mistakes or equipment malfunction. The oceanic checklists contained in that AC are derived from International Civil Aviation Organization (ICAO) guidance which represents internationally accepted best practices for oceanic operations. The procedures used by the operator applying for B054 should be scrutinized against the procedures and practices presented in AC 91-70. In addition, AC 90-105 provides a list of RNP-related topics with which pilots planning RNP operations are expected to be familiar.

4) B054 identifies specific, limited areas of operation where operators may indicate RNP 10 capability in their ATC flight plan. Those areas are a subset of that airspace authorized for oceanic and remote operations with a single LRNS. Informing ATC of RNP 10 capability is generally done in accordance with guidance in the Aeronautical Information Manual (AIM), via capability descriptor "A1" under the "PBN" heading in Item 18 of the ATC flight plan. If planning to operate completely outside the limited areas identified in B054, or if the initial oceanic segment of the flight is outside those areas, the operator must not indicate RNP 10 capability on the flight plan. In the latter scenario, the flightcrew may inform oceanic ATC via voice of the aircraft's RNP 10 capability when approaching airspace for which B054 has authorized indication of RNP 10 in the flight plan. Conversely, if the flightcrew declares RNP 10 capability on their ATC flight plan and subsequently transits into oceanic airspace where indication of RNP 10 capability is not authorized by B054, they must inform ATC via voice that they are no longer RNP 10-capable. These procedures are designed to enable ATC to apply more conservative separation standards appropriate for single LRNS operations in areas less tolerant of navigation system failures.

5) Inspectors will note that the B054 templates include specific authorization to fly on and indicate RNP 10 capability for operations on the North Atlantic (NAT) special routes (i.e., Blue Spruce routes). Operators flying under part 91K, and those part 91 operators flying large or turbojet-powered multiengine airplanes, are also governed by § 91.511, which generally limits flight over water with less than 2 LRNSs to no more than 30 minutes flying time or 100 nautical miles (NM) from the nearest shore. Accordingly, MSpec/LOA B054 reflect this limitation as it relates to the NAT special routes. If the part 91K or applicable part 91 operator can meet the § 91.511 limitations, they can fly the NAT special routes and indicate RNP 10 capability on their flight plans for such operations. (See subparagraph D7).)

6) Operations in oceanic and remote airspace require accurate navigation. Operator procedures should direct crews to confirm proper LRNS performance prior to entering oceanic and remote airspace. Similarly, recording navigation system performance upon exiting oceanic and remote airspace, or at least after landing, is important to monitoring the accuracy of the LRNS. The B054 template provides amplifying guidance.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

7) In order to operate on the NAT special routes between flight levels (FL) 285 and 420 described in the applicable B054 template, those operators must also hold OpSpec/MSpec/LOA B039. The special routes described in B054 lie within NAT HLA (formerly known as minimum navigation performance specification (MNPS) airspace) at those altitudes. Operators intending to operate in NAT HLA should be familiar with ICAO NAT Doc 007, North Atlantic Operations and Airspace Manual.

E. Authorized RNP 10-Capable Airplanes, Equipment, and Associated RNP 10 Time Limitations.

1) Table 1 of B054 is used to identify the airplane and associated single LRNS to be used for oceanic and remote operations. The airplane should be identified by make, model, and series (M/M/S). The LRNS should be identified by the major components (e.g., flight management computer (FMC), GPS, and inertial navigation system (INS)) that constitute the navigation system, along with associated make and model information for each. It is important that Table 1 adequately describe what must be operational prior to departure in order to operate under the terms of B054. There should be no doubt what constitutes the major components of the LRNS for the particular aircraft.

2) Table 1 should also specify the RNP 10 time limit for the airplane/LRNS combination, if applicable. Time limits do not apply to GPS-based LRNS. AC 90-105 provides detailed guidance on determining RNP 10 time limits for INSs. As per AC 90-105, inertial systems approved in accordance with part 121 appendix G are considered to meet RNP 10 requirements for up to 6.2 hours of flight time.

F. Validation and Testing. In accordance with Volume 3, Chapter 29, Section 8, validation of all but part 91 operators' readiness for oceanic and remote airspace navigation is required. Inspectors must coordinate with the Regional NextGen Branch (AXX-220) SAO specialist to determine whether validation testing or a validation flight is appropriate. For part 91 operations, inspectors should contact the regional SAO specialist, or AFS-54 as applicable, if there are any questions regarding an applicant's readiness for RNP 10 oceanic operations with a single LRNS.

G. Additional Information. In addition to AC 91-70, general information relating to authorizing operations in oceanic and remote airspace can be found within Volume 4, Chapter 1. Inspectors should contact the regional SAO specialist if there are questions concerning requirements and the evaluation of operators' requests for authorization for operations within oceanic and remote airspace.

OPSPEC/MSPEC B055—NORTH POLAR OPERATIONS.

A. Guidance. General guidance is contained within Volume 4, Chapter 1, Section 5 and the current edition of Advisory Circular (AC) 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen Special Areas of Operation (SAO) specialist (AXX-220), formerly known as navigation specialist. Requests for validation flights through AFS-200 must be coordinated through the regional NextGen SAO specialist.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. OpSpec/MSpec B055 Provides For North Polar Flight Operations Authorization. Operators are required to gain specific approval to conduct north polar operations (in addition to FAA approval for flight in the area of magnetic unreliability (AMU), OpSpec/MSpec B040). The north polar area of operations is defined as that area that lies north of latitude N 78°00' (refer to OpSpec/MSpec A002). OpSpec/MSpec B050 must show the specific routes approved for these north polar operations. MSpec MB055 is also available for 14 CFR part 91 subpart K (part 91K) authorization. The fractional ownership program manager must meet the same requirements as the 14 CFR part 121 certificate holder for the North Polar authorization.

C. Fuel-Freeze Strategy and Monitoring Requirements for North Polar Operations. The operator may wish to develop a fuel freeze analysis program in lieu of using the standard minimum fuel-freeze temperatures for specific types of fuel used. In such cases, the operator's fuel-freeze analysis and monitoring program for the airplane fuel load must be submitted and acceptable to the FAA. The operator should have procedures established that require coordination between maintenance, dispatch, and assigned flightcrew of the determined fuel freeze temperature of the actual fuel load on board the airplane.

D. Communication Capability. In accordance with part 121, § 121.99 (Communications Facilities), the operator must have effective communications capability with dispatch and with air traffic control (ATC) for all portions of the flight route. The operator must show the FAA the communications medium(s) that it intends to use to fulfill these requirements in the north polar north area.

1) The communications medium used must meet FAA regulatory requirements and fulfill policy/procedures established by each Air Traffic Service (ATS) unit providing control on the route of flight. Anchorage Center publishes this information in the U.S. Government Flight Information Publication Supplement for Alaska. Other countries publish ATS policies and procedures in their State Aeronautical Information Publications.

2) High Frequency (HF) Voice has been considered the primary communications medium in the Polar North Area; however, other mediums may be used in accordance with the applicable policy. For example, although HF Voice remains primary for communications with Anchorage Center, in areas where there is satellite coverage, satellite communication (SATCOM) voice may be used as a back-up to communicate with ARINC Radio and in non-routine situations to establish direct pilot-controller voice communications.

3) In areas of satellite coverage, Controller-Pilot Data Link Communications (CPDLC) may be used for ATC communications provided the ATS unit has an approved capability. In addition, provided the capability is approved, HF data link may also be used to fulfill communications requirements with ATS units having the capability and with airline dispatch.

4) It is recognized that SATCOM may not be available for short periods during flight over the North Pole, particularly when operating on designated polar routes 1 and 2 (refer to Volume 4, Chapter 1, Section 5). Communication capability with HF radios may also be affected during periods of solar flare activity. The operator must take into consideration for each

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

dispatched polar flight, the predicted solar flare activity and its effect on communication capability.

E. Minimum Equipment Lists (MEL). The operator will amend their MEL for the items that must be operational for north polar operations. For Extended Operations (ETOPS) flights, all MEL restrictions for 180-minute operations will be applicable. Prior to receiving FAA authority to conduct north polar operations, the operator will be required to amend its MEL for the following systems/equipment to indicate that they are required for north polar operations dispatch:

- Fuel quantity indicator system (FQIS) (to include fuel tank temperature indicating system),
- Auxiliary power unit (APU) - for two-engine airplanes (including electrical and pneumatic supply to its designed capability),
- Autothrottle system,
- Autopilot, and
- Communication system(s) relied on by the flightcrew to satisfy the requirement for effective communication capability.

F. Training. The following requirements must be addressed in the approved training program (part 125 certificate holders are not required to have an approved training program):

1) QFE/QNH (airport altitude settings) (refer to AC 91-70) and meter/feet issues are required for flightcrew and aircraft dispatcher training. Refer to the current edition of AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, for information in regards to cold temperature effects on altimeters.

2) Training requirements for fuel freeze strategy and monitoring requirements. Maintenance, dispatch, and flightcrew training (special curriculum segments).

3) General route-specific training on weather patterns and aircraft system limitations.

4) For diversion decisionmaking, the roles and responsibilities must be addressed for providing airplane systems capability information to dispatch and flightcrew in order to aid the pilot in command (PIC).

5) Flightcrew training in the use of the cold weather anti-exposure suit.

G. Long-Range Flightcrew Requirements. The following long-range flightcrew issues need to be addressed by the operator:

1) Rest plan submitted to the principal operations inspector (POI) for review and approval.

2) Multicrew flight proficiency issue needs to be addressed in the training program.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) The progression of the delegated PIC authority as designated by the operator. This does not mean that there can be more than one PIC on a flight who is responsible for the safe operation of the flight under §§ 121.535, 121.537, and International Civil Aviation Organization (ICAO) Annex 6, Part 1, Chapter 1, Definitions, and Chapter 4, Flight Operations, section 4.5.1.

H. Dispatch and Crewmember Considerations During Solar Flare Activity. The operator must be aware of the content of the current edition of AC 120-61, In-flight Radiation Exposure.

I. Additional Required Equipment for North Polar Operations.

1) Except for all cargo operations, expanded medical kit to include Automated External Defibrillators (AED) (Refer to the current edition of AC 91-21.1, Use of Portable Electronic Devices Aboard Aircraft).

2) A minimum of two cold weather anti-exposure suits will be required to be on board the aircraft so that outside coordination at a diversion airport with extreme climatic conditions can be accomplished safely.

J. En Route Polar Diversion Alternate Airport Requirements. Operators are expected to have a sufficient set of alternate airports for polar diversions, such that one or more can be reasonably expected to be available in varying weather conditions (The current editions of AC 120-42, Extended Operations (ETOPS and Polar Operations) and AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area) provides additional guidance for two-engine airplanes). The flight must be able to make a safe landing, and the airplane maneuvered off the runway at the selected diversion airport. In the event of a disabled airplane following landing, the capability to move the disabled airplane must exist so as not to block the operation of any recovery airplane. In addition, those airports designated for use must be capable of protecting the safety of all personnel by being able to:

1) Offload the passengers and flightcrew in a safe manner during possible adverse weather conditions,

2) Provide for the physiological needs of the passengers and flightcrew for the duration until safe evacuation, and

3) Be able to safely extract passengers and flightcrew as soon as possible (execution and completion of the recovery is expected within 12 to 48 hours following diversion).

K. Recovery Plan for Passengers at Polar Diversion Alternate Airports. All operators conducting polar operations must submit to the FAA a recovery plan that will be initiated in the event of an unplanned diversion. The recovery plan should address the care and safety of passengers and flightcrew at the approved emergency airport, and include the plan of operation to extract the passengers and flightcrew from that airport.

1) The operator should be able to demonstrate its ability to launch and conduct the recovery plan on its initial application for north polar route approval.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) The operator must maintain the accuracy and completeness of its recovery plan and diversion airport database at least annually.

L. Validation Requirements for Area Approval for Polar Operations. The operator will be required to conduct an FAA-observed validation flight in order to receive authorization to conduct polar operations. As part of the validation, the operator will be required to exercise its reaction and recovery plan in the event of a diversion to one of its designated en route alternate airports. Adequate and timely coordination must be made so that the FAA coordination necessary to have an FAA inspector in place at the selected emergency airport can be made.

1) The aviation safety inspector (ASI) will observe the effectiveness and adequacy of:

- Communications,
- Coordination,
- Facilities,
- Accuracy of Notices to Airmen (NOTAM) and weather information, and
- Operability of ground equipment during the simulated diversion.

2) The exercise of the operator's reaction and recovery plan may be completed prior to the validation flight.

3) AFS-200 will give favorable consideration to a request by the operator, through the POI, to conduct the validation flight in a passenger revenue status only if the operator's reaction and recovery plan has been previously demonstrated to the satisfaction of FAA.

4) If the operator elects to demonstrate its reaction and recovery plan as part of and during the validation flight, the flight cannot be conducted in a passenger revenue status. The carriage of cargo revenue is permissible in this case, and is encouraged, for airplane weight and balance purpose.

M. Program Tracking and Reporting Subsystem (PTRS) Requirements. Upon completion, make appropriate record entries as follows:

1) Air Transportation Oversight System (ATOS) Part 121 Tracking. Use an element-based Dynamic Observation Report (DOR). Enter OPSPB055 in the Local/Regional/National Field.

2) Title 14 CFR Parts 125 and 135 Tracking. Use codes for PTRS Input, as follows: code 1326 (Operation Specifications Original) or 1327 (OpSpecs Revision) and, if required, 1314 (Observe Route Proving Flights).

OPSPEC/LOA B057—NATIONAL PARKS AIR TOUR MANAGEMENT OPERATIONS UNDER TITLE 14 CFR PART 136.

A. Purpose. OpSpec/LOA B057 serves multiple functions. This OpSpec/LOA provides interim operating authority (IOA) to 14 CFR part 121 or 14 CFR part 135 certificate holders and 14 CFR part 91 air tour operators to conduct commercial air tour operations over the identified

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

national park units and abutting tribal lands listed in the OpSpec paragraph tables. The IOA continues in force until either an Air Tour Management Plan (ATMP) or a Voluntary Agreement (VA) is approved. The IOA may continue to be utilized for up to 180 days after an ATMP has been authorized or up to 90 days after a VA has been authorized. On the effective date of the ATMP or VA, this OpSpec authorizes the air tour operators to conduct air tour operations over the applicable national park unit or abutting tribal lands as outlined in the applicable ATMP or VA. The effective date and termination dates of a given ATMP or VA will be noted in the OpSpec. The IOA will be maintained as a historical reference should an ATMP or VA be rescinded for a particular park or operator. If any party to a VA (FAA, National Park Service (NPS), or the air tour operator) withdraws their participation in the VA or if an ATMP has been terminated, the operator may elect to return to the provisions, terms, and conditions of the previously authorized IOA contained in this OpSpec, unless such IOA has been otherwise revoked. The Flight Standards District Office (FSDO)/certificate holding district office (CHDO) will list the expiration date of the VA or ATMP in the OpSpec, and the operator will be authorized to conduct air tour operations over the applicable national park unit under the IOA upon expiration of the ATMP or VA. Because the OpSpec maintains the history of the operator's IOA, ATMP, and VA, the OpSpec must be reissued each time there is a change to either the air tour operator's authority or the applicable ATMP or VA.

B. Commercial Air Tour Operations. These operations are conducted as commercial air tour operations in accordance with part 136, the applicable operating part, and the limitations and provisions of OpSpec B057.

OPSPEC/MSPEC B059—CANADIAN MNPS (C-MNPS).

A. Purpose. OpSpec/MSpec B059 is issued to 14 CFR part 135 certificate holders. Canadian minimum navigation performance specification (C-MNPS) airspace approvals may be granted by issuance of OpSpec/MSpec B059 only and adding that area of en route operations to OpSpec/MSpec B050. OpSpec/MSpec B059 must be referenced appropriately in OpSpec/MSpec B050. If OpSpec/MSpec B039, North Atlantic High Level Airspace, authorization is applicable, the Operator must obtain OpSpec/MSpec B036 before OpSpec/MSpec B039 will be issued.

B. General Guidance. See Volume 4, Chapter 1, Section 5 for details to authorize operations in Canadian MNPS, Canadian Domestic Airspace (CDA) Designated Airspace Handbook, and the current edition of Advisory Circular (AC) 91-70, Oceanic and International Operations. Any questions in regard to application or interpretation of this OpSpec should be forwarded to your regional NextGen Special Areas of Operation (SAO) specialist (AXX-220), formerly known as navigation specialist.

C. Title 14 CFR Parts 91K, 121, and 125. B059, C-MNPS, is only issued to 14 CFR part 135 certificate holders. Part 91K, 121, and 125 operators will have OpSpec/MSpec B050 amended if they request this authorization and meet the requirements of C-MNPS airspace. Operators that have been issued OpSpec/MSpec B039 unrestricted operations for North Atlantic High Level Airspace (NAT HLA) meet the requirements for C-MNPS authorization B059. See Volume 4, Chapter 1, Section 5 for more information. Operators must consult the Canadian AIP and Transport Canada's Designated Airspace Handbook for further information on this

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

airspace. Direct questions regarding issuance of B039 to your regional NextGen (AXX-220) SAO specialist.

TSPEC/LOA B300—AUTHORITY FOR AN INSTITUTION OF HIGHER EDUCATION TO CERTIFY ITS GRADUATES FOR AN AIRLINE TRANSPORT PILOT CERTIFICATE WITH REDUCED AERONAUTICAL EXPERIENCE.

A. Purpose. LOA B300, issued by the General Aviation and Commercial Division (AFS-800), grants an institution of higher education authority to add a certifying statement to a student's transcript or other document deemed acceptable by the Administrator, which is required for a person applying for an Airline Transport Pilot (ATP) Certificate with restricted privileges in accordance with 14 CFR part 61, § 61.160(b), (c), or (d).

B. Process to Obtain Authorization. The current edition of Advisory Circular (AC) 61-139, Institution of Higher Education's Application for Authority to Certify Its Graduates for an Airline Transport Pilot Certificate with Reduced Aeronautical Experience, provides instructions for institutions of higher education on how to obtain the authority to certify students who graduate from an institution's degree program with an aviation major.

C. Issuing LOA B300. LOA B300 may only be issued by AFS-800.

1) Based on the information provided in AC 61-139, complete the information required in Tables 1 through 4.

2) Table 1 must list each authorized degree program.

3) Prior to issuing the LOA, the inspector must verify the accuracy and currency of all data entered within the tables. This includes the 14 CFR part 141 Pilot School Certificate and number for both ground and flight training, the institution of higher education's degree program(s) and the accrediting agency. This includes verifying the status and designator for the part 141 flight and ground training providers for the college or university. At a minimum, the college or university will hold its own part 141 ground school certificate, and may also have an Air Agency Certificate for both flight and ground training. If a college or university holds only a part 141 pilot ground school certificate, then it must have a training agreement with at least one part 141 pilot school that is authorized for flight training for the instrument rating and Commercial Pilot Certificate.

D. AFS-800 Website Update. Once an LOA is issued to an institution of higher education, AFS-800 will update its FAA website page containing the list of the schools with an authorization to certify their graduates for an ATP Certificate with reduced aeronautical experience.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC B342—EXTENDED OPERATIONS (ETOPS) WITH TWO-ENGINE AIRPLANES UNDER PART 121 OR 135. The FAA issues OpSpec B342 to operators who are approved to conduct Extended Operations (ETOPS) with two-engine airplanes in accordance with the limitations and provisions of this OpSpec and 14 CFR part 121, § 121.161, or 14 CFR part 135, § 135.364.

A. General Guidance. Evaluate and approve all ETOPS in accordance with the current edition of Advisory Circular (AC) 120-42, Extended Operations (ETOPS and Polar Operations), or AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area, and any additional criteria Order 8900.1 specifies. At a minimum, operators must meet the following conditions:

1) The proposed airplane/engine combination must be type-design approved for the proposed extended-range operation.

2) The ETOPS maintenance and the flight operation programs must meet or exceed AC 120-42 or AC 135-42 criteria.

3) Higher headquarters (HQ) (region and Air Transportation Division (AFS-200)) must concur with the proposed operation.

4) Successful completion of validation flights.

B. Validation Flights. In order to be authorized for ETOPS in accordance with B342, operators must satisfactorily complete validation flights as part of the ETOPS approval process. (See Volume 3, Chapter 29, and Volume 4, Chapter 6.)

1) Before conducting the validation flights, the certificate-holding district office (CHDO) will request authorization from AFS-200 via its regional office to issue the appropriate temporary OpSpec.

2) The CHDO's request should include any specific recommendations the principal maintenance inspector (PMI), principal avionics inspector (PAI), or principal operations inspector (POI) made. Following review and concurrence by AFS-200, schedule the validation flights in accordance with any additional guidance or recommendations specified in AFS-200's concurrence.

3) Once AFS-200 authorizes the validation test, the POI will select paragraph a in the B342 template that limits operations to only ETOPS validation flights and issue the temporary OpSpec.

4) Following the successful completion of the validation flights, the CHDO will send a memo through its regional office and AFS-200 to the Director of Flight Standards (AFS-1), advising that the certificate holder has successfully validated their ETOPS processes and recommending that AFS-1 authorize the CHDO to issue the appropriate OpSpecs for ETOPS.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. Limitations and Provisions. This subparagraph defines the limitations and provisions under which the operator may conduct ETOPS.

1) Use OpSpec B342 Table 1 to document the airplanes authorized to conduct these operations. The table lists the aircraft by make, model, and series (M/M/S), registration number, aircraft engine, and maximum diversion times. In the case where all M/M/S have the same maximum diversion time, the term "All" can substitute for the actual registration numbers. Use the following Figure 3-117, Sample B342 Table 1 – Authorized ETOPS Airplanes With Two Engines and Maximum Diversion Times, as an example.

2) AFS-200 approves airplanes for ETOPS based on the airplane M/M/S and the aircraft engine, which together make up the Airplane Engine Combination (AEC). Once AFS-200 approves the POI to grant initial ETOPS authority based on a particular AEC and specific airplanes listed by registration number in B342, adding or removing an airplane by registration number in Table 1 does not require further coordination with, or approval by, AFS-200. If the AEC has not yet been approved for ETOPS, coordination and approval by AFS-200 is required. All airplanes approved for ETOPS with two-engine airplanes must be listed in the certificate holder's OpSpec D086, Maintenance Program Authorization for Two-Engine Airplanes Used in Extended Range Operation.

Figure 3-117. Sample B342 Table 1 – Authorized ETOPS Airplanes With Two Engines and Maximum Diversion Times

AIRPLANE TYPE (MAKE/MODEL/ SERIES)	REGISTRATION NUMBERS	AIRCRAFT ENGINE	MAXIMUM DIVERSION TIME IN MINUTES
Boeing 737-400	All	CFM International CFM56-3	120
Boeing 757-200	All	Rolls Royce RB211-535E4	180
Boeing 777-200	N602PA	General Electric GE90-110B	207
Airbus A330	N630PA	Pratt And Whitney PW4000-100	180

3) Use OpSpec B342 Table 2 to document the approved ETOPS en route alternate airports (see Figure 3-118, Sample B342 Table 2 – ETOPS Alternates, below). These airports are in addition to a flight's departure, destination, and destination alternate airports.

4) After AFS-200 approves the POI to grant ETOPS authority by issuing B342, adding or removing an ETOPS alternate airport from Table 2 does not require additional approval by AFS-200. All other changes to B342 require coordination and prior approval by AFS-200, unless otherwise specified in this section.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-118. Sample B342 Table 2 – ETOPS Alternates

AIRPORT (IDENT)	SPECIAL CONDITIONS/LIMITATIONS
KEFLAVIK (BIKF)	None
SONDERSTROM (BIRK)	None
GANDER (CYQX)	None
LAJES (LPLA)	None
SHANNON (EINN)	None
REYKJAVIK (BIRK)	B737 ONLY

D. Part 121 ETOPS With Diversion Times of 75 Minutes or Less. Evaluate and approve on a case-by-case basis part 121 ETOPS with maximum diversion times of 75 minutes or less. Although type-design approval is not necessary for ETOPS of 75 minutes or less, review the airplane's design to identify any special equipment or requirements necessary to safely conduct these operations. Except for ETOPS in the Western Atlantic and Caribbean Sea, ETOPS maintenance and flight operations programs for these operations must meet the criteria in AC 120-42. The FAA, on a case-by-case basis, approves operations in the Western Atlantic Ocean and Caribbean Sea considering the reliability of the propulsion system, the character of the terrain, kind of operation, performance of the airplane to be used, capabilities of the alternate airports en route, and the special provisions for this area in B342. All ETOPS with diversion times of 75 minutes or less require the respective regional office and AFS-200 review and concurrence before issuing OpSpecs approval for these operations.

E. Authorizations. As appropriate, the FAA can use B342 to issue a general ETOPS authorization, a special authorization for the Western Atlantic and Caribbean Sea, or both, only under part 121.

F. B342 With Two-Engine Airplane Under Part 121 Only. Special provision for Western Atlantic Ocean and Caribbean Sea is a specific authorization and the FAA issues it if the operator has authorization to conduct any special ETOPS in the Western Atlantic Ocean and Caribbean Sea using a maximum diversion time of 75 minutes or less. Use OpSpec B342 Table 3 to document the airplanes approved for these operations. The table lists the airplane M/M/S and any special equipment or limitations required to ensure the airplane is airworthy for these operations. If appropriate, use the special equipment/limitations columns to limit the operation to a specific aircraft series. See Figure 3-119, Sample B342 Table 3 – Special Provision for Western Atlantic and Caribbean Sea ETOPS, below.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-119. Sample B342 Table 3 – Special Provision for Western Atlantic and Caribbean Sea ETOPS

AIRPLANE TYPE (MAKE/MODEL/SERIES)	SPECIAL EQUIPMENT/LIMITATIONS
Airbus 300-B4200	Series A300B4203 Only
Boeing 737-200	APU Generator Operating
Boeing 767-300	None
McDonnell Douglas MD-81	MAX TOGW 140,000

G. Additional OpSpecs. In addition to the ETOPS OpSpecs, operations may require additional OpSpecs, such as: B036 for Class II navigation; B037 if the operation involves Central East Pacific (CEP) airspace; B038 if the operation involves North Pacific (NOPAC) airspace; B039 if the operation involves North Atlantic High Level Airspace (NAT HLA); and B040 if the operation involves areas of magnetic unreliability. If the operation involves transatlantic flight in the NAT, the FAA can authorize these operations under B041 if the capabilities of the aircraft permit NAT Operation (NAT/OPS) under the 60-minute rule.

NOTE: This is not a complete list of additional OpSpecs. It has been included in this section to provide examples only.

H. Experienced ETOPS Operator. Once a certificate holder has authorization to conduct ETOPS, procedures and systems should be in place to support any additional ETOPS authority. The application package for an experienced ETOPS operator requesting a new aircraft/engine combination, a change to the existing authorization (e.g., 120 minutes to 180 minutes), or a new geographic area of operation, may not be as complex as a new entrant operator. The CHDO will make this determination, along with the concurrence of the regional office and HQ.

NOTE: Additional information is available in AC 120-42 and AC 135-42, depending on the type of operation requested. Additional guidance regarding the approval and continued assessment of the ETOPS process can be found in Volume 4, Chapter 6.

OPSPEC B343—PERFORMANCE-BASED CONTINGENCY FUEL REQUIREMENTS FOR FLAG OPERATIONS.

A. Background.

1) International Civil Aviation Organization (ICAO) Annex 6, Part I, was amended in November 2012, creating an allowance for Member States to develop a performance-based, in lieu of prescriptive-based, fuel-planning program. Prescriptive-based fuel planning has been the standard for years; however, with advances in technology, the FAA has identified the need to provide air carriers relief from certain fuel provisions of 14 CFR part 121. Advancements in aircraft navigation accuracy, communication, and weather forecasting have greatly improved the flight planning accuracy.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) For international flight operations, the current prescriptive approach requires that the air carriers add a fuel reserve equal to 10 percent of the flight time from departure to destination for unplanned contingencies. Prior to the release of this OpSpec, the en route contingency fuel requirements could be reduced with OpSpec B044, Planned Redispatch or Rerelease En Route, or B043, Special Fuel Reserves in International Operations. The Performance-Based Contingency Fuel (PBCF) process described in this OpSpec allows air carriers to utilize their considerable investment in aircraft equipment, automation, and process to determine the appropriate amount of fuel required to account for unforeseen contingencies. These investments allow air carriers to identify fuel issues earlier in flight, allow for greater communication of options, and allow for earlier contingency plan development to avoid low-fuel events.

3) The PBCF program allows participating air carriers to set an unplanned contingency fuel requirement based upon their demonstrated fuel-planning performance. This value will be specific to airplane make and model, city pair route (direction dependent is assumed when the city pair route is referenced), and arrival time window at the destination airport. For each combination of airplane make and model/city pair route/arrival time window, the air carrier must demonstrate, based upon past fuel-planning performance, that the probability of burning all contingency fuel meets the following requirement:

a) For air carriers with an approved minimum landing fuel program, the probability of burning all unplanned contingency fuel is no greater than 1 in 10 in forecasted non-convective conditions at the destination airport, or 1 in 100 when thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport.

b) For air carriers without an approved minimum landing fuel program, the probability of burning all PBCF is no greater than 1 in 70 in forecasted non-convective conditions at the destination. When thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport, the unplanned contingency fuel value shall be no less than 10 percent of the total time required to fly from departure to the intended destination airport.

4) This authorization grants the air carrier a deviation from certain requirements of part 121, § 121.645(b)(2), and, therefore, must be listed in OpSpec A005.

NOTE: The performance-based fuel criteria and the unplanned contingency fuel levels derived from that criteria reflect normal day-to-day variations, to include: weather, air traffic, winds aloft forecasting, and terminal area traffic patterns. It does not cover deviations due to closed runways; minimum equipment list (MEL)/Configuration Deviation List (CDL) items; significant en route issues such as volcanic ash concerns; airspace restrictions; turbulence; icing; and convective activity, which may affect the normal planned route and altitude profile. The air carrier and dispatchers must account for the additional known contingency fuel requirements from events such as these in accordance with § 121.647.

NOTE: B343 is a nonstandard OpSpec, and the procedures for requesting a nonstandard OpSpec apply. See Volume 3, Chapter 18, Section 2, paragraph 3-712, for guidance in requesting a nonstandard OpSpec. Changes to

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

the specific airplane make and model/city pair/arrival time window combinations authorized in Table 1 of this OpSpec do not require headquarters (HQ) review and approval after initial issuance of this OpSpec.

B. Conditions for Approval.

1) The certificate holder is authorized, under a deviation as provided in § 121.645, to conduct certain 14 CFR flag air carrier operations using the fuel supplies specified below in accordance with the special limitations and provisions of this OpSpec.

NOTE: The certificate-holding district office (CHDO) will ensure that the FAA team evaluating the air carrier's PBCF program includes an Operations Research Analyst (ORA) and an Aviation Safety Inspector—Aircraft Dispatcher (ASI-AD). If the CHDO does not have the resources, the office will request assistance through their regional Flight Standards District Office (FSDO). If the region does not have an ORA or ASI-AD assigned, they can request assistance through the Air Transportation Division (AFS-200).

2) The local CHDO must review the operator's PBCF program policies and procedures prior to AFS-200 review. These policies and procedures must cover duties and responsibilities for not only the flightcrew and dispatchers, but also the analysts and auditors of the program. Flightcrew members, dispatchers, and those personnel who are responsible for the oversight and reporting of the PBCF program must be trained in the use of these procedures.

C. Performance Fuel Calculation Requirements. Required fuel supply: Each airplane dispatched under the authority of OpSpec B343 shall have enough fuel on board, considering the requirements of § 121.647, to:

1) Fly to and land at the airport to which it is dispatched.

2) After that, unplanned contingency fuel (i.e., PBCF) to fly for a period of time, restricted to no less than 5 minutes of unplanned contingency fuel (calculated at 1,500 feet holding speed), based on the statistical burn deviation specific to each airplane make and model/city pair/arrival time window combination authorized in the reference document in Table 1. When no PBCF value is available, the unplanned contingency fuel value shall not be less than 10 percent of en route time, or, for operators with an approved minimum landing fuel program, it shall be not less than 5 percent of the en route time. The PBCF fuel must meet the following requirements:

a) Option 1. For air carriers that have an approved minimum landing fuel program: the probability of burning all PBCF is no greater than 1 in 10 in forecasted non-convective conditions at the destination airport, or 1 in 100 when thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport.

b) Option 2. For air carriers that do not have an approved minimum landing fuel program: the probability of burning all PBCF is no greater than 1 in 70 in forecasted non-convective conditions at the destination. When thunderstorms are forecasted or can reasonably be expected in the vicinity of the destination airport, the unplanned contingency fuel

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

value shall be no less than 10 percent of the total time required to fly from departure to the intended destination airport.

3) Where a destination alternate airport is required, the amount of fuel required to enable the airplane to:

a) Perform a missed approach at the destination airport;

b) Climb to the expected cruising altitude;

c) Fly the expected routing;

d) Descend to the point where the expected approach is initiated; and

e) Conduct the approach and landing at the destination alternate airport.

4) When no alternate is required:

a) The certificate holder must carry additional fuel to account for a possible missed approach and return to land at the destination airport.

b) The fuel planned when no alternate airport is required must include a minimum arrival fuel to divert to an airport with a runway that meets the requirements of § 121.197 and has an operable instrument approach. Planned arrival fuel at the intended destination must allow the flight to divert and land with not less than the minimum arrival fuel specified in § 121.645(b)(4). (This is for planning purposes only.)

5) After that, to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport (or the destination airport if no alternate is required) under actual or forecasted temperatures and conditions.

6) The fuel required accounting for known delays (planned contingency fuel), PBCF (unplanned contingency fuel), and missed approach fuel (if no alternate is required) or alternate fuel and final reserve fuel must be included in the minimum fuel calculation.

D. Approved Airplanes and Areas. The certificate holder is authorized to conduct these operations using the approved airplane make and model/city pair/arrival time window combination(s) as listed in the approved document referenced in Table 1 and with provisions of this OpSpec.

Figure 3-197. Sample Table 1 – Approved Document and Revision

Document Name and Location	Revision Status
Airline Performance-Based Tracking Tool/ Flight Operations Manual Appendix 1	Original

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) Minimum data requirements for performance-based fuel:

a) Quantity. The minimum data points for each airplane make and model/city pair/arrival time window combination shall be:

1. For PBCF, 1 in 10, a minimum of 60 data points; and

2. For PBCF, 1 in 70 or 1 in 100, a minimum of 120 data points.

b) Seasonality. Data gathered must be over a period of time that reflects the seasonality of the proposed operation. The data should reflect the variability for two seasons; for example, if the arrival city experiences both winter and summer weather variabilities, those operations must be evaluated prior to operation.

c) Recency. The required data must include data gathered during the equivalent seasonal period in the previous 12 months (e.g., data for April through August 2015 would be applicable to operations during the same monthly period in 2016).

2) City pair is directional in nature (e.g., for 1 in 10 performance threshold, Chicago O'Hare International Airport (ORD) to London Heathrow Airport (LHR) would require 60 data points and LHR to ORD would require an additional 60 data points).

3) Arrival time window should not be greater than 2 hours total unless the air carrier has established statistical data to substantiate a larger arrival time window. For arrival time windows greater than 2 hours, any 120-minute period within that arrival time window must contain the minimum number of data points required in subparagraph D1)a) above. Changes to arrival time window calculations must be approved by AFS-200.

NOTE: For operators that do not have the required number of data elements, they may petition to AFS-200 to substitute other company aircraft data to meet the minimum data requirements.

4) Operators must have procedures to alert the dispatcher when a departure delay would cause the flight to arrive outside the original planned arrival time window.

5) In cases where planned delays would push the arrival into a timeframe beyond the original planned arrival time window, the operator must establish procedures and controls to have the dispatcher and pilot in command (PIC) review the § 121.647 conditions, to include reanalyzing the en route burn for fuel planning.

6) When no PBCF value is available, the unplanned contingency fuel value shall not be less than 10 percent of en route time, or, for operators with an approved minimum landing fuel program, it shall be not less than 5 percent of the en route time.

7) The PBCF values (airplane make and model/city pair/arrival time window) must be accessible by the flightcrews and dispatchers, even if automation populates the required field in the flight planning system.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

8) The supporting data and final PBCF values must be accessible to the Administrator on request.

9) A recalculation of the PBCF data must be made a minimum of once a month.

10) For a new airplane make and model/city pair/arrival time window combination that the air carrier has not previously flown, PBCF values will not be used until the data requirements of subparagraph D1)a) through c) are met either via automated calculations and controls or by approval of the CHDO.

NOTE: Additions/deletions of airplane make and model/city pair/arrival time window combinations do not require HQ review and concurrence after initial issue. These changes to the data are coordinated between the CHDO and air carrier and amendment to Table 1 may be required. Any changes to the PBCF statistical methodology, alerting, or reporting system must be evaluated by the CHDO and HQ.

NOTE: Program Tracking and Reporting Subsystem (PTRS) code 1328 will be used to document the air carrier's initial request and annual fuel meetings with the CHDO. The principal operations inspector (POI) will insert "B343" in the "National Use" field (without quotations).

E. Special Limitations and Provisions. The certificate holder shall conduct operations that use the fuel supplies authorized by this OpSpec in accordance with all of the following conditions:

1) As applicable, the flight shall be dispatched in accordance with § 121.621, Alternate Airport for Destination: Flag Operations. Additionally, if the destination airport has only one usable runway, an alternate airport must be listed on the dispatch release.

2) The provisions of this OpSpec may not be used in conjunction with the provisions of OpSpec A012, B043, or B044.

3) The certificate holder must have a fuel consumption bias program to maintain a hull-specific performance monitoring system that continuously monitors, analyzes, and compares the fuel performance calculations to the actual performance for each individual airplane used under this deviation.

4) Accurate meteorological data, including upper wind information equal to or more accurate than 1.25 degrees (1.25 degrees of latitude by 1.25 degrees of longitude grid over the globe) gridded model winds must be utilized for the entire flight plan route.

5) All flight deck fuel quantity indicators must be operational at dispatch. Any en route failure of these indicators must be reported as soon as practical to the aircraft dispatcher.

6) Fuel requirements of this authorization must not be lower than the requirements of § 121.193(c) or the Extended Operations (ETOPS) critical fuel requirements of § 121.646, as applicable.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

7) The certificate holder must have approved policies and procedures to maintain a flight monitoring system that generates alerts and requires the flightcrew to alert the dispatcher of any significant deviations from the flight planned route, altitude, and speed and any shortfalls in fuel on board compared to flight-planned fuel. If the flight reports any significant deviation or shortfall of fuel while en route, the PIC and aircraft dispatcher must agree upon a course of action and document the decision. Significant deviations from the plan are defined as:

a) If actual estimated time of arrival (ETA) will exceed planned ETA by more than 15 minutes;

b) Fuel on board shortfall compared to flight planned fuel over a flight plan fix (or abeam fix as appropriate) exceeds 15 minutes of endurance;

c) When no alternate is required and the total contingency fuel(s) (for the purpose of this requirement, total contingency fuel includes planned and unplanned) is less than 15 minutes, the PIC will alert the dispatcher when the ETA is planned to exceed the contingency value in minutes;

d) Cruising altitude varies by more than 4,000 feet from the flight plan;

e) Current route exceeds 100 nautical miles from the flight plan route; or

f) Cruise speed deviates by greater than .02 Mach.

8) The air carrier must have a primary and secondary method of communication between the flightcrew and the dispatch department. These systems must be available for the entire route of flight.

9) The air carrier shall establish performance measures and process controls to ensure the equivalent level of safety to § 121.645 is maintained. Performance measures must include measures of complete PBCF fuel burns, both expected and actual, for each airplane make and model/city pair/arrival time window and in aggregate.

10) The air carrier may operate a supplemental charter operation in accordance with OpSpec A030 to a destination where PBCF program data is available.

11) The provisions of this OpSpec may not be used when any system outage would affect the monitoring or alerting of the fuel.

12) If the flight reports any significant deviation or shortfall of fuel while en route, the PIC and dispatcher must agree upon a course of action and document the decision.

F. Reports Required by This OpSpec. The air carrier must provide the flight data specified below to the CHDO. The data supplied must be in a format acceptable to the Administrator.

1) The air carrier must record and identify the root cause for any flight that consumes all of the contingency fuel required by this OpSpec and arrives with less than

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

60 minutes of fuel remaining (calculated at 1,500 feet holding speed). For the purpose of determining PBCF burn-in, the following is the defined fuel hierarchy:

a) Taxi fuel;

b) En route burn;

c) MEL fuel penalty (does not include unusable fuel (e.g., fuel pump inoperative; 3,500 pounds must be carried in tank));

d) Planned contingency fuel for known delays or holding;

e) Section 121.193(c) or the ETOPS critical fuel requirements of § 121.646;

f) PBCF;

g) Minimum landing fuel or other additional fuel (e.g., captain- and dispatcher-added fuel);

h) Alternate fuel if required; and

i) Thirty-minute final reserve fuel (refer to § 121.645).

2) The following information will be provided in a quarterly report to the CHDO:

a) Summary of the air carrier's performance measures related to this process, including measures of complete PBCF burns, both expected and actual, for each airplane make and model/city pair/arrival time window and in aggregate;

b) A table summarizing the PBCF values on the last day of the quarter for each airplane make and model/city pair/arrival time window combination in effect on that day; and

c) The quarterly report shall list all flights excluded from PBCF calculations during the quarter, including the reasons for exclusion.

3) All data necessary to generate/duplicate the PBCF values will be made available to the Administrator for the purpose of an audit of a sampling of airplane make and model/city pair/arrival time window combinations. This audit shall be conducted no less than annually and shall cover no less than five unique airplane make and model/city pair/arrival time window combinations.

4) The air carrier must report to the POI within 24 hours, whenever any flight makes a declaration of minimum or emergency fuel to the air navigation service provider.

5) Additionally, the certificate holder will report any occurrence of a low (minimum fuel) fuel state, which results in actions being taken by air traffic control and/or dispatch in order to provide priority handling, even if no emergency or minimum fuel state is declared. This will be included as a part of the quarterly reporting.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

G. Calculating PBCF Values.

1) The PBCF program allows air carriers to carry an appropriate unplanned contingency fuel based upon their demonstrated fuel-planning accuracy. The FAA has established performance thresholds (see subparagraph C2)). Approved air carriers will set their level of unplanned contingency fuel to meet the performance threshold for each specific airplane make and model/city pair/arrival time window combination based upon their historical fuel-planning accuracy for that specific combination.

2) A method for calculating the necessary PBCF is presented below. The method presented uses a rank order percentile calculation of actual versus planned fuel burns. The air carrier is not limited to this method but must obtain CHDO and HQ approval for any deviation from this method. Air carriers may apply seasonal weighting factors to their PBCF data to better match the seasonal operating environment.

3) PBCF calculation method. To calculate the required unplanned contingency fuel required for a specific airplane make and model/city pair/arrival time window combination using a rank order percentile method, one must first rank each flight in the data sample in order, from least to greatest, of actual fuel burn as a percentage of planned fuel burn. We then calculate the percentile ranks of each of those values according to:

$P_n = (n – ½) / N$

Where

N is the flights included in sample

n represents the nth item in the ordered data sample

In this example, $P_n = (n – ½) / 347$

NOTE: The formula for calculating percentiles must be $P_n = (n – ½) / N$.

Table 3-14. Ordered Ranking Subset

n	Value (V_n)	Percent Rank (P_n)
1	0.9003939	0.001441
2	0.911910	0.004323
3	0.9162371	0.007205
…	…	…
342	1.041393	0.984150
343	1.043561	0.987032
344	1.047506	0.989914
…	…	…

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

a) Once the values have been put in order from least to greatest, the unplanned contingency fuel required can be found by locating the integer n for which:

$$p_n < P < p_{n+1}$$

Where P is the cumulative probability of burning less than all PBCF, in accordance with the fuel hierarchy defined in subparagraph F1).

b) For an air carrier with no minimum landing fuel program, dispatching a flight where non-convective conditions are expected at or near the destination airport, the cumulative probability of burning less than all of PBCF is:

$$P(x) = 1-(1/70) = 0.98571$$

c) In this example, P(x) falls between the percentile values associated with the 342nd and 343rd items in the sorted list.

d) The value associated with the 342nd and 343rd items in the list are:

$$v_{342} = 1.041393 \text{ and } v_{343} = 1.043561$$

e) Percentiles associated with the 342nd and 343rd items in the list are:

$$p_{342} = .98415 \text{ and } p_{343} = .98703$$

f) We then interpolate between these values to find the value V where:

$$V = v_k + ((P-p_k)/(p_{k+1}-p_k))*(v_{k+1}-v_k)$$

$$= 1.041393 + ((0.98571-.98415)/(.98703-.98415))*(1.043561-1.041393)$$

$$= 1.043$$

g) For this airplane make and model/city pair/arrival time window combination with non-convective conditions expected, the air carrier would need to carry a PBCF of no less than 4.3 percent of their planned en route fuel to meet the 1 in 70 criteria.

H. Additional Requirements.

1) The certificate holder must retain the information used to generate PBCF values and the PBCF values used for a minimum of 1 year or longer if the air carrier's system is based on a longer period of time.

2) Any change in airframe or engine condition, or configuration that may affect the performance of the airplane make and model, requires a reassessment of the fuel consumption biases used in the calculations of PBCF.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

I. Oversight Monitoring Program. The certificate holder must establish an internal oversight program to monitor this deviation acceptable to the Administrator. This oversight program must at a minimum evaluate the number of complete PBCF burns quarterly, both expected (based upon performance threshold applicable to each flight) and actual. These measures must be generated for each airplane make and model/city pair/arrival time window combination and in aggregate. For those airplane make and model/city pair/arrival time window combinations where actual complete PBCF burns exceed the expected value by a significant amount, the operator must consider mitigating action, which may include one or more of the following:

1) Adding additional unplanned contingency fuel to each flight;

2) Reassessing whether the model used to calculate PBCF is appropriate;

3) Excluding route(s) from B343;

4) Reevaluation of B343's performance thresholds; and/or

5) Closer monitoring of specific route(s).

OPSPEC B344—EXTENDED OPERATIONS IN PASSENGER-CARRYING AIRPLANES WITH MORE THAN TWO ENGINES, UNDER PARTS 121 OR 135. The FAA issues OpSpec B344 to operators who are approved to conduct Extended Operations (ETOPS) with airplanes with more than two engines in accordance with the limitations and provisions of this OpSpec, and 14 CFR part 121, § 121.161, or 14 CFR part 135, § 135.364.

A. General Guidance. Evaluate and approve all ETOPS in accordance with the current edition of Advisory Circular (AC) 120-42, Extended Operations (ETOPS and Polar Operations), or AC 135-42, Extended Operations (ETOPS) and Operations in the North Polar Area and any additional criteria Order 8900.1 specifies. As a minimum, operators must meet the following conditions:

1) The proposed airplane/engine combination must be type-design approved for the extended range operation proposed for aircraft manufactured after February 17, 2015, for part 121, or February 15, 2005, for part 135.

2) The ETOPS maintenance and the flight operation programs must meet or exceed the criteria in AC 120-42 or AC 135-42.

3) Higher headquarters (HQ) (region and Air Transportation Division, AFS-200) must concur with the proposed operation.

4) Successful completion of validation flights.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Validation Flights. In order to issue OpSpec B344, operators must accomplish validation flights (as described in Volume 3, Chapter 29 and Volume 4, Chapter 6) as part of the ETOPS approval process.

1) Before conducting the validation flights, the certificate-holding district office (CHDO) will request authorization from AFS-200 via its regional office to issue the appropriate temporary OpSpec. Once AFS-200 authorizes the validation test, the principal operations inspector (POI) will select paragraph a in the B344 template that limits operations only to ETOPS validation flights, and issue the temporary OpSpec.

2) The CHDO's request should include any specific recommendations the principal maintenance inspector (PMI), principal avionics inspector (PAI), or POI, made. Following review and concurrence by AFS-200, schedule the validation flights in accordance with any additional guidance or recommendations specified in AFS-200's concurrence.

3) Following the successful completion of the validation flights, the CHDO will send a memo through their regional office and AFS-200 to the Director of Flight Standards (AFS-1), advising that the certificate holder has successfully validated their ETOPS processes, and recommending that AFS-1 authorize the CHDO to issue the appropriate OpSpecs for ETOPS.

C. Limitations and Provisions. This subparagraph defines the limitations and provisions under which the operator may conduct ETOPS.

1) Use OpSpec B342 Table 1 to document the airplanes authorized to conduct these operations. This table lists aircraft by make, model, and series (M/M/S), registration number, aircraft engine, and maximum diversion times. In the case where all M/M/S have the same maximum diversion time, the term "All" may substitute for the actual registration numbers. Use Figure 3-117 in OpSpec B342 as an example.

2) Use OpSpec B344 Table 2 to document the approved ETOPS en route alternate airports. These airports are in addition to a flight's departure, destination, and destination alternate airports.

NOTE: After initial approval of ETOPS has been granted, subsequent changes to Table 2, such as the addition of a new en route alternate, do not have to be forwarded for approval to AFS-200 via the regional office. This only applies to Table 2. Coordinate all other changes to this OpSpec through the regional office to AFS-200.

Figure 3-120. Example Completed Table 2, Authorized ETOPS Alternate Airports

AIRPORT (IDENT)	SPECIAL CONDITIONS/LIMITATIONS
HONOLULU (PHNL)	None
MIDWAY ATOLL (PMDY)	None
TAHITI (NTAA)	None

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

D. Additional OpSpecs. In addition to the ETOPS OpSpecs, operations may require additional OpSpecs, such as: B036 for Class II navigation; B037 if the operation involves Central East Pacific airspace; B038 if the operation involves North Pacific airspace; B039 if the operation involves North Atlantic High Level Airspace (NAT HLA); B040 if the operation involves areas of magnetic unreliability. If the operation involves transatlantic flight in the North Atlantic, the FAA can authorize these operations under B041 if the capabilities of the aircraft permit NAT/OPS under the 60-minute rule.

NOTE: This is not a complete list of additional OpSpecs. It has been included in this section to provide examples only.

E. Experienced ETOPS Operator. Once a certificate holder has authorization to conduct ETOPS, procedures and systems should be in place to support any additional ETOPS authority. The application package for an experienced ETOPS operator requesting a new aircraft/engine combination, a change to the existing authorization (120 minutes to 180 minutes), or a new geographic area of operation, may not be as complex as a new entrant operator. The CHDO will make this determination, along with the concurrence of the regional office and headquarters (HQ).

NOTE: Additional information is available in AC 120-42 and AC 135-42, depending on the type of operation requested. Volume 4, Chapter 6 contains additional guidance regarding the approval and continued assessment of the ETOPS process.

OPSPEC/MSPEC/LOA B450—SENSITIVE INTERNATIONAL AREAS.

A. Background. The FAA needs to communicate vital and time sensitive safety information regarding overflights and/or flights into foreign areas where potentially hostile situations exist. OpSpec/MSpec/LOA B450 is not an authorization, but is a data collection template that tracks what sensitive countries an operator operates into or overflies. The B450 is applicable to 14 CFR parts 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), 135, and 91 subpart K (part 91K). B450 is mandatory for the areas of operation identified as sensitive international areas authorized in the operator's B050 (see B050 guidance in this section). B450 is not mandatory for operators who do not have these affected areas of operation authorized in OpSpec B050 authorized.

B. Procedure. Any time a part 91K, 121, 125, (including part 125 LODA holders) or part 135 operator requests to add an area of operation in OpSpec B050, the principal operations inspector (POI) must determine if the added areas of operation is required to be listed on B450. The following steps will assist the POI in determining whether to issue or amend a B450:

1) Identify the B050 authorized area containing the country of proposed operation. Refer to the "Authorized Areas Country Listing" in the Web-based Operations Safety System (WebOPSS) guidance for help in locating a country within an authorized area.

2) Determine if the B050 authorized area is required to be listed on B450. Refer to the paragraph titled "Listing and Explanation of Authorized Areas of En Route Operations" located under OpSpec B050 guidance in this chapter and section. Find the authorized area and

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

locate the Required Paragraphs listing. If B450 is a required paragraph for the authorized area, it will be listed. If the B450 is not listed do not issue or amend B450.

3) If B450 is required, identify whether the operator either overflies or operates into/out of any of the countries listed on the U.S. Prohibitions, Restrictions and Notices list of countries at the following Internet Web address: http://www.faa.gov/air_traffic/publications/ifim/us_restrictions/.

a) If the operator does not operate into/out of, or overfly a country listed on the Web site listed in paragraph B3 above (Excluding the United States, Bahamas, Canada, and Cuba):

1. Enter "N/A" in column 1, and do not fill in any other column in Table 1 of B450.

2. Complete Table 2.

b) If the operator does operate into/out of, or overfly a country listed on the Web site (Excluding the United States, Bahamas, Canada, and Cuba):

1. List in B450 the appropriate country in column 1 of Table 1.

2. Choose the flight operation (overflight, or into/out of) in column 2.

3. Choose the International Civil Aviation Organization (ICAO) code of the airport(s) if the operator operates into/out of that country. If multiple airports apply, enter the ICAO code for each airport separated by a comma. If the operator only overflies the country, leave the column blank.

4. Choose the frequency (daily, weekly, monthly, or on-demand).

5. Choose the type of operations (passenger, cargo, U.S. Government operations, or a combination) for the listed countries.

6. Choose the responsible persons (either management or operational control person(s) or operational control organization) and list the persons or organization in Table 2 of the template. This contact must be available 24 hours a day, 7 days a week.

4) If the B450 was previously issued or must now be issued because the operator has chosen to operate into an identified sensitive country on the Web list, the operator should amend B450 before operating that flight. In the case of a short notice charter, the operator may operate into or overfly the country before amending/issuing the B450 provided that the appropriate B450 action is completed within 72 hours after accepting the charter flight.

5) Operators and program managers should review the list of countries every 3 months for any changes and be cognizant of any Notices to Airmen (NOTAM) that may add a country to the list, and amend or issue OpSpec/MSpec/LOA B450 as appropriate.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: The U.S. Prohibitions, Restrictions, and Notices list Web site referenced in paragraph B3 above will be modified to allow operators to sign up for email notification of changes using a subscription email service. When the subscription email service is activated, the operator will be expected to monitor email updates for changes affecting their operations into sensitive international areas and update B450 accordingly. If a subscription email service is utilized, this process replaces the 3-month review requirement.

RESERVED. Paragraphs 3-817 through 3-870.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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) parts 91, 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 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)/LOAs (Parts A, B, C, D, E, and H) require approval by the appropriate Flight Standards policy division. Title 14 CFR parts 61, 91, 91K, 125 (including the 125 LODA holders), 133, and 137 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). 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 Program Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec/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 Flight Standards policy division. For detailed guidance on the process for obtaining approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

NOTE: The following TSpecs designated with a "*" are for part 142 only.

OPSPEC/MSPEC/LOA C048—ENHANCED FLIGHT VISION SYSTEM (EFVS) OPERATIONS.

A. Introduction. C048 is required for each operator, program manager, or certificate holder under 14 CFR part 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (A125 LODA) holders), or 135 who request authorization to conduct EFVS

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

operations under part 91, § 91.176. LOA C048 is required for part 91 operators (other than part 91K) in order to conduct operations under § 91.176(a). Part 91 operators conducting operations under § 91.176(b) may obtain optional LOA C048 in order to facilitate foreign civil aviation authority (CAA) approvals. Inspectors should read guidance in Volume 4, Chapter 17 before issuing an EFVS authorization. Authorization preparation consists of correctly populating Table 1 and Table 2 (if applicable) of C048.

NOTE: The Flight Standards Service's (AFS) EFVS focal point listed on the following Flight Operations Branch's (AFS-410) website should be contacted by principal inspectors (PI) for questions concerning the preparation for issuing C048: https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs410/efvs/.

B. Instructions for Table 1 (Figure 3-252). The following are instructions to inspectors for populating Table 1 of the authorization:

Figure 3-252. Sample C048 Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EVS Sensor	Authorized EFVS Operation	EFVS Visual Advantage	Limitations and Provisions
(With sub-list attribute)	(Drop Down) Kollsman EVS Kollsman EVS II CMC CMA-2600 CMC CMA-2700 Rockwell-Collins EVS3000p	(Drop Down) § 91.176(a) § 91.176(b) § 91.176(a) and (b)	(Text Box)	(Drop Down) Subparagraph x(x)(x) Subparagraph x(x)(x) Subparagraph x(x)(x)

1) Airplane (M/M/S). Select the make, model, and series (M/M/S) of the airplane that was evaluated with the specific installed EFVS. Airplane M/M/S with different EFVS installations must be listed in separate rows.

NOTE: Only airplanes from an operator's aircraft list in the Web-based Operations Safety System (WebOPSS) assigned an EFVS authorization will populate the drop-down list provided in the "Airplane (M/M/S)" column in Table 1. To add the EFVS authorization to an airplane, go to "CHDO" – "Maintain Operator Data" – "Aircraft," select the operator's airplane to edit, and add "EFVS" to the "Authorization" section.

2) EVS Sensor. Select the certified Enhanced Vision Systems (EVS) sensor installed on the airplane. Identical EVS sensors installed on different airplane M/M/S must be listed in separate rows.

3) Authorized EFVS Operation(s). Select the applicable EFVS operation(s) that the operator is authorized to conduct based on results of the application evaluation. The following applies to selections available:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

a) Section 91.176(a). The EFVS equipment is certified for EFVS operations to touchdown and rollout and the operator is authorized for EFVS operations to touchdown and rollout.

b) Section 91.176(b). The EFVS equipment is certified for EFVS operations to touchdown and rollout or EFVS operations to 100 feet above the touchdown zone elevation (TDZE), and the operator is only authorized for EFVS operations to 100 feet above the TDZE.

c) Section 91.176(a) and (b). The EFVS equipment is certified for EFVS operations to touchdown and rollout, and the operator is authorized for EFVS operations to 100 feet above the TDZE and EFVS operations to touchdown and rollout.

4) EFVS Visual Advantage. This column only appears in templates for parts 121, 125, 125 A125 LODA holder, and 135 operators. Inspectors must coordinate with the Flight Technologies and Procedures Division (AFS-400) EFVS focal point before entering a value in this column. AFS-400 will assist the principal operations inspector (POI) with determining the visual advantage value to be entered into this column for each qualifying airplane M/M/S.

5) Limitations and Provisions. The selections in this column identify a specific subparagraph within the authorization which provides operational limitations and provisions that may be applicable to an authorization. Inspectors must select all subparagraphs from the drop-down menu that apply to the authorization.

a) The following guidance applies to the selections available for parts 121, 125, 125 A125 LODA holder, and 135 authorizations:

1. Select subparagraph d(1)(a) (subparagraph 4a(1) for a part 125 A125 LODA holder) when § 91.176(a) operations are authorized.

2. Select subparagraph d(1)(b) (subparagraph 4a(2) for a part 125 A125 LODA holder) when § 91.176(b) operations are authorized.

3. Select subparagraph d(1)(c) (subparagraph 4a(3) for a part 125 A125 LODA holder) when the certificate holder is authorized to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP) past the final approach fix (FAF), when the current reported visibility is below the visibility minimums prescribed in the IAPs.

4. Select subparagraph d(1)(d) (subparagraph 4a(4) for a part 125 A125 LODA holder) when the certificate holder is authorized to use EFVS operational minimums to dispatch, release, or takeoff a flight when visibility at the destination is forecast below the minimums prescribed in the IAPs.

5. Select subparagraph d(1)(e) (subparagraph 4a(5) for a part 125 A125 LODA holder) to enter additional limitations or provisions that are identified during the evaluation by either the operator or the FAA. The POI must contact the AFS-400 EFVS focal point for assistance.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

b) The following guidance applies to the selections available for parts 91 and 91K authorizations:

1. Select subparagraph c(1)(a) (subparagraph 3a(1) for a part 91 LOA) when § 91.176(a) operations are authorized.

2. Select subparagraph c(1)(b) (subparagraph 3a(2) for a part 91 LOA) to enter additional limitations or provisions that are identified during the evaluation by either the operator or the FAA. The POI must contact the AFS-400 EFVS focal point for assistance.

6) Instructions for Table 2. Inspectors must fill out Table 2 when issuing LOA C048 to part 91 operators. The contact information of the responsible person must be included as described in the LOA.

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Operations into Special Pilot in Command (PIC) Qualification Airports. Air carriers conducting domestic, flag, and supplemental operations require the PIC to be qualified 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Under any other criteria authorized by AFS-400.

4) By the U.S. military agency operating the U.S. military airport.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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."

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 (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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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 parts 121 and 125 (including part 125 Letter of Deviation Authority (A125 LODA) holders). 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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. Pilot-In-Command (PIC) Qualifications. For parts 121 and 135 operations, C054 also specifies that before a PIC of a turbojet can conduct an instrument approach with visibility conditions reported to be below ¾ statute mile (sm) or RVR 4000 (basic turbojet landing minimums), 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 parts 121 and 135 operations, after the PIC has been qualified to use Lower Landing Minimums (LLM), and the destination visibility conditions are forecast to be less than ¾ sm 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 unless authorized to conduct enhanced flight vision system (EFVS) operations and use EFVS operational minimums.

3) Once airborne, additional consideration of landing field length by the flightcrew is not required for normal operations. If unforecast 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 by 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

is depicted by "Alternate Minimums Not Authorized" symbol. ⚠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 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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 circumstances must be determined considering the runway in use, runway conditions, current

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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)).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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		

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- 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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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);

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 unless it's for part 91 (C052 is not required for 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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 instrument approach procedures (IAP) may be flown using an MDA as a DA/DH if they meet the criteria set forth in this guidance.

NOTE: C073 provides protection for the temporary altitude loss below the MDA when performing a missed approach at an MDA used as a DA/DH. The use of an MDA as a DA/DH does not ensure obstacle clearance when continuing the approach 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 was certified and documented in accordance with Advisory Circular (AC) 20-129, Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S. National Airspace System (NAS) and Alaska (now cancelled), or AC 20-138, Airworthiness Approval of Positioning and Navigation Systems (revision A and later). 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 was certified in accordance with AC 20-129 (now cancelled) or AC 20-138 (revision A and later).

NOTE: AC 20-129 (now cancelled) applied only to barometric vertical navigation (baro-VNAV), while AC 20-138A applied only to Satellite-based Augmentation Systems (SBAS) and Ground Based Augmentation Systems (GBAS).

NOTE: AC 20-129 was cancelled when guidance information for baro-VNAV, SBAS, and GBAS was combined into AC 20-138B and later versions. Any operator authorized C073 with aircraft approved for baro-VNAV under AC 20-129 (now cancelled) is allowed to maintain their C073 authorization with approved aircraft.

b) An Aircraft Evaluation Group (AEG) verification that the applicant’s aircraft and flight management system (FMS) meets AC 20-129 (now cancelled) 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

NOTE: New software versions do not have to be updated in the table if inspectors confirm that an advisory vertical guidance capability remains after the software update. The confirmation should be confirmed by the updated SB, a manufacturer/Original Equipment Manufacturer (OEM) statement, or any other FAA-approved method.

D. Public Vertically Guided IAP Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath 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), 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 Vertical Descent Angle (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 all 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) Is selected from an approved and current database.

b) Has the exact published final approach course as the RNAV IAP.

c) Has a published VDA coincident with or higher than 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 also has a published LPV or LNAV/VNAV DA.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

NOTE: The VNAV path must cross at or above all stepdown fix altitudes. The stepdown fix crossing altitudes must be referenced on the barometric altimeter.

NOTE: Flying the published VDA below the MDA does not guarantee obstacle clearance. The VDA is advisory guidance only. 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.

2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima and:

a) Is selected from an approved and current database.

b) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

c) 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 an ILS/Localizer (LOC) approach when the ILS GS is out of service and the approach is flown using LOC-only procedures.

2. A published VDA is not required when using the LNAV minima line on an RNAV approach that also has a published LPV or LNAV/VNAV DA.

NOTE: The VNAV path must cross at or above all stepdown fix altitudes. The stepdown fix crossing altitudes must be referenced on the barometric altimeter.

NOTE: Flying the published VDA below the MDA does not guarantee obstacle clearance. The VDA is advisory guidance only. 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.

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.

NOTE: Operators should refer to the FAA Chart Supplement (formerly the Airport/Facility Directory) to verify that there are no VGSI restrictions if the final approach course is offset from the extended RCL.

G. Approach Design Requirements. The IAP must conform to the following procedural design:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) Be published with a VDA or GS found in the profile view.

2) Have a VNAV path angle greater than or equal to 2.75 and equal to or less than 3.77 degrees for Category A, B, and C airplanes; and a VNAV path angle greater than or equal to 2.75 and equal to or less than 3.50 degrees for Category D airplanes.

3) Steeper descent paths may be authorized in accordance with the current edition of AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach. Submit aircraft capability and supporting procedures to the Flight Technologies and Procedures Division (AFS-400) via the principal operations inspector (POI).

H. Database. The database must be certified in accordance with AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases. The procedure must be retrievable from a current database. Source data or database providers must provide for the specification of a VPATH that ensures operation above stepdown fix altitudes 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 approved training program, to include VNAV procedures and the instrument procedures listed in OpSpec/MSpec/LOA C052. Part 91 operators are not required C052. Part 91 and 125 operators, including A125 LODA holders, 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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, 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.

TSPEC C075—CIRCLING APPROACH PROCEDURES (and Continuation TSpecs C175, C176, and C177).** Training Center Program Managers (TCPM) issue TSpec C075 to authorize certain circling approach procedures for use in specific flight simulation training devices (FSTD). This can result in a large amount of information on C075. To accommodate this, C175, C176, and C177 have been introduced as "continuation" TSpecs. These new TSpecs must be used in sequential order. Each successive TSpec must reach 40 pages before using the next sequentially-numbered TSpec, ***unless reaching the 40-page mark will result in a list of circling approach procedures for an FSTD breaking across TSpecs. Circling approach procedures for an FSTD must be listed and authorized on one TSpec. If reaching 40 pages will result in a break, proceed to the next sequential TSpec without reaching the specified 40 pages in order to accommodate the complete list on one TSpec. More detailed information can be found in Volume 3, Chapter 54.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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) 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);

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

F. RVR Applicability to Lower-Than-Standard Takeoff Minimums.

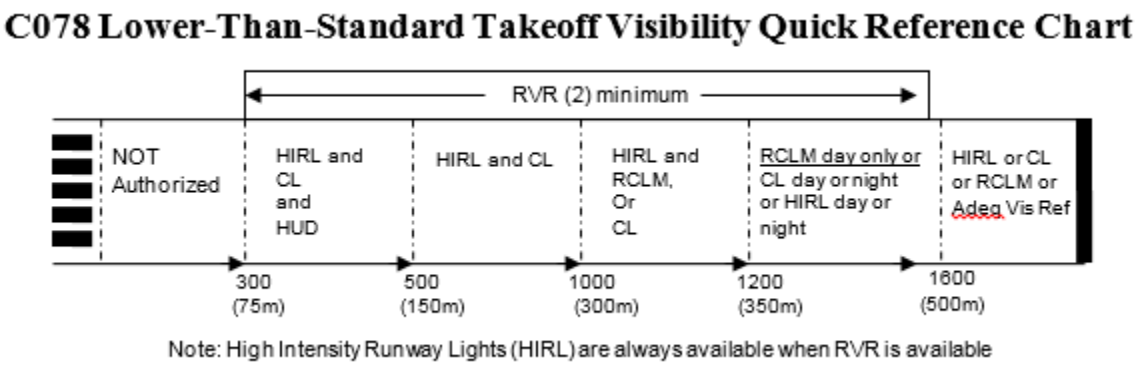
1) Other than the authorization for RVR 1600 (500 meters), which permits use of Runway Visibility Values (RVV) under the appropriate authorization for an operator issued C078 or C079, all the authorizations in C078 and C079 are based on RVR reports that are generated by RVR sensors.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

b) Where three RVR sensors are installed on the runway to be used:

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Control System, current edition, includes guidance and/or advisory information about acceptable techniques;

- Taxiway critical areas;
- 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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:

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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/.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

***TSPEC C175—CIRCLING APPROACH PROCEDURES (Continued from C075).** Use this TSpec when C075 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C075 and C175. If reaching 40 pages on C075 will result in a break, proceed to C175 before reaching 40 pages on C075.

***TSPEC C176—CIRCLING APPROACH PROCEDURES (Continued from C175).** Use this TSpec when C175 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C175 and C176. If reaching 40 pages on C175 will result in a break, proceed to C176 before reaching 40 pages on C175.

***TSPEC C177—CIRCLING APPROACH PROCEDURES (Continued from C176).** Use this TSpec when C176 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C176 and C177. If reaching 40 pages on C176 will result in a break, proceed to C177 before reaching 40 pages on C176.

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

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.

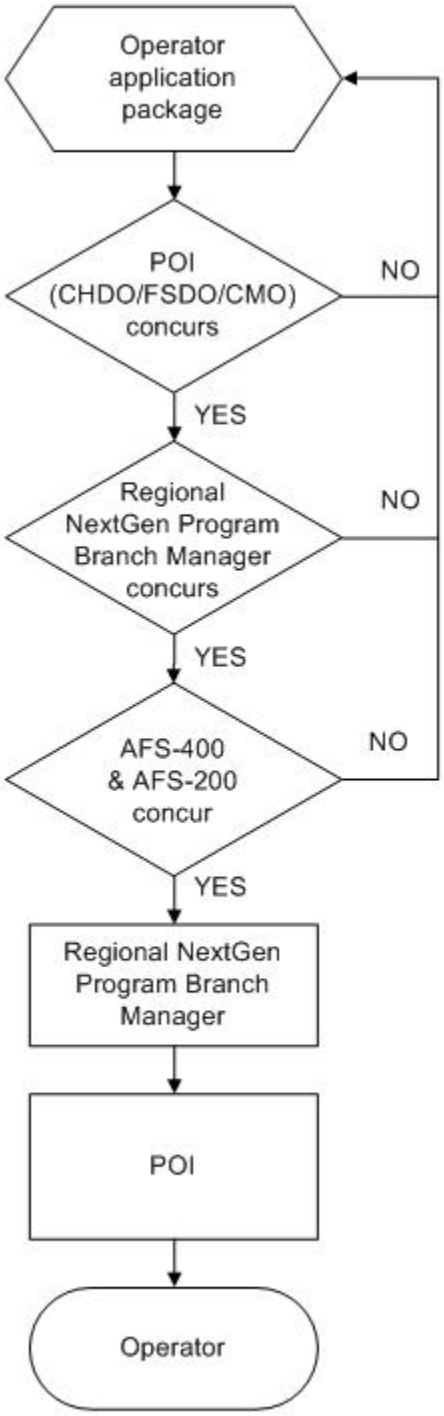
c) AFS-400 will review the application in consultation with AFS-200 and forward a written concurrence to the regional NextGen program branch manager.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-66G. Instrument Approach Procedures Using Substitute Means of Navigation Application Flowchart



UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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		

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) The FSDO inspector shall:

a) Verify the pilot's identity and credentials (pilot certificate/instrument rating/aviation medical).

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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.

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).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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) 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

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 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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-66C. Sample C384 Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures with AR

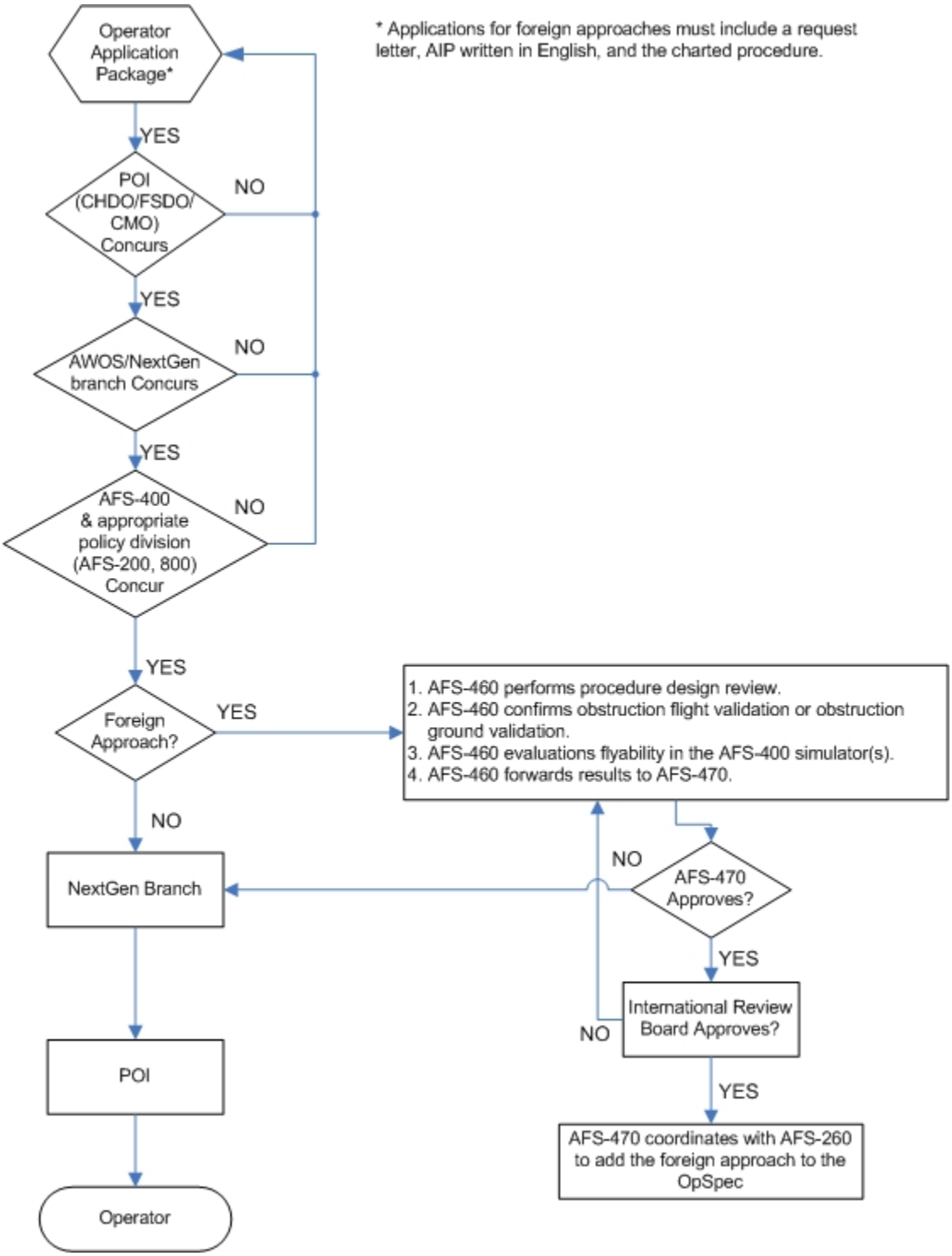
Aircraft M/M/S	Navigation System M/M/Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities
B-737-700/800	GE Aerospace FMC (2), p/n 171497-05-01, U 10.8A	None	With flight director: RNP .15 With autopilot: RNP .11	1) RF legs. 2) Missed approach requiring less than RNP 1.0.

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.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-67E. RNP AR Application Flowchart



RESERVED. Paragraphs 3-872 through 3-920.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 6 Parts D and E Maintenance Operations Specifications/Management Specifications/Letters of Authorization

3-921 GENERAL.

NOTE: All 300-series and nonstandard 500-series operations specifications (OpSpecs)/management specifications (MSpecs)/training specifications (TSpecs)/letters of authorization (LOA) (Parts A, B, C, D, E, and H) require approval by the appropriate Flight Standards policy division. Title 14 of the Code of Federal Regulations (14 CFR) parts 61, 91, 91 subpart K (part 91K), 125 (including part 125 Letter of Deviation Authority (LODA) holders), 133, and 137 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 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 the International Program Division (AFS-50), AFS-200, or AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from AFS-50.

NOTE: All text added to an OpSpec/MSpec/TSpec/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 Flight Standards policy division. For detailed guidance on the process for obtaining approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

NOTE: A revision of a listed document within a table does not require reissuance of the OpSpec/MSpec unless the manual title or document number changes, or when a table requires the most current revision to be identified.

OPSPEC/MSPEC D070—INTEGRATION OF AIRCRAFT FUEL TANK MAINTENANCE AND INSPECTION INSTRUCTIONS INTO A CAMP. DECOMMISSIONED. For certificate holders/foreign persons/foreign air carriers; OpSpec/MSpec D070 was superseded by OpSpec/MSpec/LOA D097.

OPSPEC/MSPEC D072—AIRCRAFT MAINTENANCE—CONTINUOUS AIRWORTHINESS MAINTENANCE PROGRAM (CAMP) AUTHORIZATION.

A. OpSpec/MSpec D072. This OpSpec/MSpec is issued to operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 91, § 91.1109; 14 CFR part 121; and 14 CFR part 135, § 135.411(a)(2). OpSpec/MSpec D072 contains the

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

conditions that must be met for a certificate holder to operate their aircraft and lists the reference documents that contain the details of the operator's program.

B. Certificate Holder/Program Manager. The certificate holder/program manager is authorized to conduct operations using identified aircraft maintained in accordance with the CAMP and the limitations specified in these OpSpecs/MSpecs.

C. OpSpec/MSpec D072 CAMP Authorization. Table 1 must contain the following:

1) Each of the aircraft authorized to be maintained in accordance with the CAMP by make, model, and series (M/M/S).

2) The document(s) that encompasses all 10 elements of a CAMP. The certificate holder/program manager may have multiple manuals that encompass the CAMP. The principal inspector (PI) may elect to list all the manuals encompassing the CAMP or if one manual references all the other manuals, then preferably he or she may list only that particular manual.

3) The certificate holder/program manager's assigned number(s) of the CAMP document(s).

NOTE: Title 14 CFR part 125 operators are required to have an inspection program and are not subject to the requirements of a CAMP (refer to part 125, § 125.247). OpSpec/MSpec D072 is issued to parts 91 subpart K (part 91K), 121, and 135 operators with a CAMP requirement.

OPSPEC/MSPEC/LOA D073—APPROVED INSPECTION PROGRAM. Issue D073 to an operator, certificate holder, or A125 LODA holder (125M) who is required to use, or chooses to use, an inspection program approved by the FAA. There are four different applications of OpSpec/MSpec/LOA D073. Each D073 is worded differently to reflect the requirements of the applicable regulation.

A. Different Applications of D073.

1) Title 14 CFR part 91 subpart K (part 91K) – Issue MSpec D073 to authorize an operator to use an Approved Aircraft Inspection Program (AAIP) under § 91.1109(b).

2) Title 14 CFR part 135 – Issue OpSpec D073 to authorize a certificate holder to use an AAIP under § 135.419.

NOTE: You will also issue OpSpec/MSpec D101 through D104 as applicable.

3) Title 14 CFR part 125 – Issue OpSpec D073 to authorize a certificate holder to use an AAIP under § 125.247(a)(3).

4) Title 14 CFR part 125 – Issue LOA D073 to authorize a Letter of Deviation Authority (LODA) holder (125M) to use an approved airplane inspection under § 125.247(a)(3).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Inspection Program Requirements. Parts 91K, 135, and 125 (including 125M) require a certificate holder, operator, or A125 LODA holder to include the approved inspection program in its required manual (refer to § 91.1025(L), § 135.419(e), § 135.23(o), and § 125.249(a)(3)). To comply with the regulations and have control of the inspection program, the operator, certificate holder, or A125 LODA holder must either control the section of their manual that contains the inspection program as an approved section, or include the program in a separate manual or document which is part of the certificated holder's manual. Either way, the certificate holder or operator must have a control in place to prevent any changes to the inspection program without prior FAA approval.

OPSPEC D074—RELIABILITY PROGRAM AUTHORIZATION: ENTIRE AIRCRAFT.

A. OpSpec D074 Authorization. OpSpec D074 is authorized for operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2). This OpSpec authorizes the use of a maintenance reliability program that contains standards for determining maintenance intervals and processes. This program controls the inspection, check, overhaul, or restoration times for the entire aircraft and is the sole control as far as OpSpecs are concerned. Each make, model, and series (M/M/S) of aircraft controlled by reliability and its approved reliability document shall be identified in this OpSpec. Guidance for approving a reliability program is found in Volume 3, Chapter 40.

B. Reliability Program Authorization. OpSpec D074, Table 1 must contain the following:

1) The M/M/S of each aircraft controlled by a reliability program; the level of detail in specifying the series of aircraft should match the detail in the operator's program.

2) The document name that encompasses the reliability program and the certificate holder's assigned number(s) of the reliability document.

3) The current revision date of the reliability document, placed in the "Document Date" block.

OPSPEC D075—RELIABILITY PROGRAM AUTHORIZATION: AIRFRAME, POWERPLANT, SYSTEMS, OR SELECTED ITEMS. OpSpec D075 is authorized for operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2). This OpSpec authorizes the use of a maintenance reliability program containing the standards for determining maintenance intervals and processes. The program controls the inspection, check, overhaul, or restoration time for airframe, powerplant, systems, or individually selected items within a system (hydraulic system, pumps, valves, actuators, etc.) and must be identified in the OpSpecs.

A. Maintenance Time Limitations Section. Airframe, powerplant, systems, or items controlled by reliability will be identified in the "Maintenance Time Limitations" section by an asterisk or other identifier and a note.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Referenced Document. If preferred, a certificate holder may reference in the "Maintenance Time Limitations" section a document approved by the Administrator. The referenced document will contain at least that information required by the "Maintenance Time Limitations" section.

C. Program Approval. Guidance for approving this program is found in Volume 3, Chapters 40 and 43.

1) Components not subject to the certificate holder's partial reliability program must be controlled by a time limitations manual or document. This manual or document must be listed in OpSpec D088, Table 1.

2) Table 1 must contain the following:

- The make, model, and series (M/M/S) of each aircraft controlled by a reliability program; the level of detail in specifying the series of aircraft should match the detail in the operator's program;
- The document name that encompasses the partial reliability program, and the certificate holder's assigned number(s) of the partial reliability document; and
- The current revision date of the partial reliability document.

NOTE: Operators authorized OpSpec D075 must be issued OpSpec D088.

NOTE: This OpSpec does not apply to 14 CFR part 125 operators.

OPSPEC/MSPEC D076—SHORT-TERM ESCALATION AUTHORIZATION.

A. OpSpec/MSpec D076. This OpSpec/MSpec is authorized for operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 91, § 91.1109; 14 CFR part 121; and 14 CFR part 135, § 135.411(a)(2). OpSpec/MSpec D076 authorizes a certificate holder/program manager to use short-term escalation procedures with aircraft, powerplant, systems, or selected items without preapproval by the principal inspector (PI).

B. Short-Term Escalations. Certificate holders who have short-term escalation procedures incorporated into their reliability program (OpSpec D074) or partial reliability program (OpSpec D075) do not need an OpSpec/MSpec D076 authorization for items covered in those programs. Items not subject to a partial reliability program must have OpSpec/MSpec D076 authorization to use short-term escalations.

NOTE: See Volume 3, Chapter 37.

C. Limitations. Table 1 references the aircraft by make, model, and series (M/M/S) and the limitations (if applicable) placed on that particular M/M/S. The limitations in Table 1 are primarily for airframe check and inspection intervals. Engines and their components, as well as airframe components and appliances, are generally not limited-except for the 10 percent, not to exceed 500 hours.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) The limitations section of this table is used to restrict a particular M/M/S task below the maximum allowable 10 percent, not to exceed 500 hours. An example would be if an aircraft "A" check has an interval of 200 hours (200 x 10 percent = 20 hours), and the PI limited the "A" check short-term escalation to not exceed 15 hours, then the PI should list that task in Table 1.

2) It can also be used to eliminate certain tasks from being eligible for short-term escalation. An example would be if the operator was not permitted short-term escalations on a particular M/M/S aircraft "B" check.

3) If the limitations section of this table is left blank, then the operator is authorized to short-term escalate all items to the maximum interval described in their manual.

NOTE: If restrictions and eliminations are requested for engine, engine components, airframe components, and appliances, then they may be listed in the limitations for that particular M/M/S as well.

OPSPEC D077—MAINTENANCE CONTRACTUAL ARRANGEMENT AUTHORIZATION: FOR AN ENTIRE AIRCRAFT.

A. OpSpec D077 Authorization. OpSpec D077 is authorized for operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2). This OpSpec authorizes a certificate holder to use a part 121 or § 135.411(a)(2) certificate holder's approved maintenance program for the maintenance of its entire aircraft. If applicable, this includes participation in the contractor's reliability program (see Volume 3, Chapters 40 and 42). Title 14 CFR part 125, §§ 125.245 and 125.247 authorize the operator subject to an Approved Aircraft Inspection Program (AAIP) under part 125 to enter into a contractual agreement for the accomplishment of maintenance, preventive maintenance (PM), alterations, or required item inspections as identified in the operator's manual.

B. OpSpec D077. Table 1 must contain the following information:

1) Contractor Name and Address. This field must list the contractor with whom the certificate holder has entered into an agreement for the specific maintenance function listed.

2) Contract Date. Self-explanatory.

3) Aircraft Make, Model, and Series (M/M/S). Self-explanatory.

4) Powerplant M/M/S. Self-explanatory.

5) Maintenance Function. List the maintenance function(s) performed per the contract.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC D078—MAINTENANCE CONTRACTUAL ARRANGEMENT AUTHORIZATION: FOR SPECIFIC MAINTENANCE.

A. OpSpec D078 Authorization. OpSpec D078 is authorized for operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2). This OpSpec authorizes a certificate holder to use another part 121 or § 135.411(a)(2) certificate holder's approved maintenance program for specific maintenance functions. This OpSpec identifies the functions to be performed by the contractor on the certificate holder(s) aircraft listed in the table. This OpSpec may be used for one or more contracts, aircraft/engine makes and models, or components (see Volume 3, Chapter 42).

B. OpSpec D078. OpSpec D078 authorizes and identifies the functions to be performed by the contractor on the certificate holder's aircraft listed in the table. Table 1 must contain the following information:

1) Contractor. This field must list the contractor with whom the certificate holder has entered into agreement for the specific maintenance function listed.

2) Contract Number and Contract Date. Self-explanatory.

3) Aircraft Make, Model, and Series (M/M/S). Self-explanatory.

4) Specific Maintenance Function. This field can be as general as stating "All" for the entire aircraft and engines, or it can list specific inspections or checks.

NOTE: This OpSpec only applies to the performance of maintenance and inspections.

OPSPEC D079—RELIABILITY PROGRAM CONTRACTUAL ARRANGEMENT AUTHORIZATION.

A. OpSpec D079 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2) to participate in another part 121 or § 135.411(a)(2) contractor's FAA-approved reliability program for its aircraft, powerplant, systems, or selected components (see Volume 3, Chapter 41).

NOTE: Operators authorized under OpSpec D079 will be automatically issued OpSpec D088.

B. OpSpec D079. Table 1 must contain the following information:

1) Contractor. This field must list the contractor with whom the certificate holder has entered into agreement for the specific reliability function listed.

2) Contract Number and Contract Date. Identifying number from contract (if applicable) and date signed.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Aircraft Make, Model, and Series (M/M/S). Self-explanatory.

4) Reliability Program Name and Number. Name of program and number assigned by contractor.

5) Reliability Program Date. Date of current revision.

OPSPEC D080—LEASED AIRCRAFT MAINTENANCE PROGRAM AUTHORIZATIONS: U.S.-REGISTERED AIRCRAFT.

A. OpSpec D080 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2) to use a lessor's approved maintenance program for the leased aircraft. OpSpec D080 applies only to leases of aircraft intended to return to the lessor at a time specified in the lease.

B. Leased Aircraft Maintenance Program Authorizations. The certificate holder is authorized to maintain the aircraft listed in Table 1 in accordance with the lessor's approved maintenance program for the specific make, model, and series (M/M/S) of aircraft and lease agreements identified in Table 1, except as provided in Table 2.

NOTE: Table 2 identifies specific items that will be maintained in accordance with the certificate holder's approved maintenance program.

NOTE: Specific maintenance program requirements of the certificate holder that are different than the lessor's program will be listed in Table 2.

OPSPEC D081—PARTS POOL AGREEMENT AUTHORIZATION.

A. OpSpec D081 Authorization. This OpSpec authorizes a 14 CFR part 121 certificate holder operating outside the United States under the provisions of part 121, § 121.361(b) to enter into a parts pooling agreement with foreign air carriers or agencies whose employees do not hold U.S. airman certificates (see Volume 3, Chapter 39).

B. Parts Pool Agreement Authorization. Table 1 must list the participants, along with their location, who are eligible to provide parts to the certificate holder.

OPSPEC D082—PRORATED TIME AUTHORIZATION.

A. OpSpec D082 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2) to use aircraft for which inspection and overhaul times have been established using the prorating process.

B. Prorated Time Authorization. Table 1 lists each aircraft by registration, serial number, and make, model, and series (M/M/S) that shall be maintained in accordance with the adjusted times identified in the certificate holder's proration document. The table must list the individual proration document number assigned by the air carrier and current effective date.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC D083—SHORT-TERM ESCALATION AUTHORIZATION FOR BORROWED PARTS SUBJECT TO OVERHAUL REQUIREMENTS.

A. OpSpec D083 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2) relief from approved overhaul time limits when borrowing parts from another certificate holder.

B. A Certificate Holder's Authorization to Use a Borrowed Part. Provided that all of the conditions listed in the OpSpec are met, the certificate holder is authorized to use a borrowed part (overhauled) from another operator when time in service of the available part exceeds the certificate holder's approved overhaul time limit.

OPSPEC D084—SPECIAL FLIGHT PERMIT WITH CONTINUOUS AUTHORIZATION TO CONDUCT FERRY FLIGHTS. This OpSpec authorizes 14 CFR part 119 certificate holders with an approved continuing flight authorization program to issue a special flight permit with continuing authorization to conduct ferry flights. This permit can only be issued under the guidelines set forth in 14 CFR part 21, § 21.197(c).

NOTE: Table 1 must reference the certificate holder's manual(s) that contains the approved continuing flight authorization program.

NOTE: The issuance/authorization of OpSpec D084 does not approve the continuing authorization to conduct a ferry flight program (CAFP) but simply authorizes the use of the procedures listed in Table 1 of OpSpec D084. The certificate holder should have a separate control in place for an acceptance/approval process of their manuals and/or sections of their manual system relating to the CAFP by the FAA.

MSPEC D084—SPECIAL FLIGHT PERMIT WITH CONTINUOUS AUTHORIZATION TO CONDUCT FERRY FLIGHTS. This MSpec authorizes 14 CFR part 91 subpart K (part 91K) program managers subject to a Continuous Airworthiness Maintenance Program (CAMP) under part 91, § 91.1411 to issue a special flight permit with continuing authorization to conduct ferry flights. This permit can only be issued under the guidelines as set forth in 14 CFR part 21, § 21.197(c).

NOTE: Table 1 must reference the certificate holder's manual(s) that contains the policies, procedures, conditions, and limitations necessary to conduct the ferry flight.

NOTE: The issuance/authorization of MSpec D084 does not approve the continuing authorization to conduct a ferry flight program (CAFP) but simply authorizes the use of the procedures listed in Table 1 of MSpec D084. The certificate holder should have a separate control in place for an acceptance/approval process of their manuals and/or sections of their manual system relating to the CAFP by the FAA.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC/MSPEC D085—AIRCRAFT LISTING. Title 14 CFR part 119 certificate holders conducting operations under 14 CFR part 121, 125, or 135 who are required to maintain liability insurance coverage under Title 49 of the United States Code (49 U.S.C.) § 41112 and its implementing regulation, 14 CFR part 205, § 205.4(b), must list their authorized aircraft in these OpSpecs/MSpecs. Program managers are required to list all aircraft in MSpec D085.

A. Liability Insurance Coverage. Section 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." All part 119 certificate holders conducting operations noted above are required to have continuous, effective liability insurance coverage that is in effect to ensure that the public is protected in the event of an accident. Effective liability insurance coverage is a condition for them to hold Office of the Secretary of Transportation (OST) economic authority.

B. Non-Use Suspension. For air carrier certificate holders who request to hold the liability insurance coverage in suspension on aircraft for specific periods of non-use, refer to OpSpec A501 and OpSpec D106.

C. Certificate Holders Operating Aircraft Under 14 CFR Part 125. These certificate holders are not required to maintain liability insurance; although, they are required to list authorized airplanes by type and registration number on their OpSpecs, per part 125, § 125.31(b)(2).

D. Aircraft Not in Revenue Service. The aircraft listing may also contain the certificate holder's aircraft that are not in revenue service. These aircraft include, but are not limited to, those that are undergoing heavy maintenance, in storage, awaiting parts, newly purchased, or being altered. However, the certificate holder must have procedures specifying how these aircraft are handled while they are conformed to regulatory requirements for operations in air transportation and before they are released for operations in air transportation. This applies to part 119 certificate holders conducting operations under 14 CFR part 121, 125, or 135, regardless of the kind of operations conducted.

NOTE: Aircraft that the certificate holder newly acquires may be placed on the aircraft listing, without a conformity inspection, to permit the certificate holder to operate the aircraft under 14 CFR part 91 and to conduct those maintenance, preventive maintenance (PM), or alteration activities necessary to conform the aircraft to regulatory requirements for operations in common carriage. Under no circumstance should an air carrier certificate holder who is authorized to conduct operations under either part 121 or 135 be issued a deviation under § 125.3. The prohibitive language of part 119, § 119.5(h) does not permit any aviation safety inspector (ASI) to issue such a deviation to an Air Carrier Certificate holder authorized to conduct common carriage operations under part 121 or 135.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

E. Aircraft Used Under an Interchange Agreement.

1) Due to compatibility problems with the Web-based Operations Safety System (WebOPSS), the use of the asterisk to identify aircraft used under an interchange agreement must be discontinued. Other methods are under study and will be incorporated into WebOPSS and this chapter when completed. Until that time, the FAA asks that the interchange aircraft be placed at the end of the OpSpec D085 aircraft listing for ease of identification.

2) The table(s) must list the aircraft registration number, serial number, nose number (if applicable), and aircraft make, model, and series (M/M/S).

OPSPEC D086—MAINTENANCE PROGRAM AUTHORIZATION FOR TWO-ENGINE AIRPLANES USED IN EXTENDED RANGE OPERATION.

A. OpSpec D086 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR parts 121 and 135, as applicable, to use certain approved aircraft in Extended Operations (ETOPS). Airworthiness aviation safety inspectors (ASI) must be familiar with OpSpec B342 and shall coordinate with the principal operations instructor (POI) before approving OpSpec D086 (see Volume 4, Chapter 6).

B. Maintenance Program Authorization for Two-Engine Airplanes Used in ETOPS. Complete the following tables as described below:

1) Table 1 must include the approved aircraft registration number, airplane make, model, and series (M/M/S), and the maximum diversion time in minutes.

2) Table 2 identifies the reliability program, which continually assesses the propulsion and airframe systems with the extended-range fleet. The following must be included:

a) Airplane M/M/S. Self-explanatory.

b) Powerplant M/M/S. Self-explanatory.

c) Program Name. Enter the name of the reliability program.

d) Program Number. Assigned number of the program by the air carrier.

e) Program Date. Enter date of approval.

3) Table 3 identifies the Configuration, Maintenance, and Procedures (CMP) document for ETOPS and must include the following:

a) Airplane M/M/S. Self-explanatory.

b) Powerplant M/M/S. Self-explanatory.

c) FAA-Approved CMP Document Name/Number. Enter document name and assigned number for which the CMP is contained.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

d) Document Date. Enter the date that the above document was originally approved.

e) FAA-Approved Amendment No. Enter the current amendment number and date, if applicable, for the above approved document.

OPSPEC D087—MAINTENANCE PROGRAM AUTHORIZATION FOR LEASED FOREIGN-REGISTERED AIRCRAFT OPERATED BY U.S. AIR CARRIERS. This OpSpec authorizes certificate holders under 14 CFR part 121 and 135 to maintain leased, foreign-registered aircraft by adopting the foreign air carrier's maintenance program.

NOTE: If a principal inspector (PI) approves a revision to an adopted foreign maintenance program, that approval must be done on an individual basis by amending this OpSpec.

A. OpSpec D087 Authorization. Table 1 must be completed as follows:

1) Foreign Air Carrier. Enter the name of the foreign air carrier.

2) Aircraft M/M/S. Self-explanatory.

3) Identification/Registration Number. Self-explanatory.

4) Lease Date. Self-explanatory.

5) Maintenance Program Revision Number/Date. Revision number and date of the foreign air carrier's leased maintenance program—original approval of the maintenance program must be identified with "ORIG."

NOTE: If during the lease period a part 121 or 135 certificate holder operating a foreign aircraft has accepted the foreign air carrier's maintenance inspection program as its own, all parties are reminded that the foreign-registered aircraft is still subject to the country of origin's rules and regulations. If the foreign airworthiness certificate is enforcing the maintenance inspection, program and time limitations cannot be altered by the part 121 or 135 certificate holder lessee without prior approval of the country of origin's Civil Aviation Authority (CAA). If a change is requested, it must be through the foreign air carrier who will request the change. If the foreign CAA agrees to the changes, the approval is forwarded to the part 121 or 135 certificate holder via the foreign air carrier. The part 121 or 135 certificate holder will make a request for any changes through the FAA certificate-holding district office (CHDO). If all parties agree, the PIs may amend the inspection time and this OpSpec.

B. Differences Between the Certificate Holder's Adopted and Approved Programs. Table 2 identifies differences/exceptions between the certificate holder's adopted maintenance programs for leased, foreign-registered aircraft and the certificate holder's approved program (if applicable). Each item or system that is considered a difference or exception must be listed in Table 2 as follows:

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

1) Air Transport Association of America (ATA) Chapter. Enter the ATA code for the applicable item or system.

2) Primary Maintenance Process. List maintenance requirements for the item or system (overhaul, inspect, replace, etc.).

3) Inspection and Check Period. List inspection and/or check frequency/interval.

4) Other. This field can be used for general comments.

NOTE: Do not combine items into one row of this table. Each item must be broken down into ATA chapters and listed individually in this table.

OPSPEC D088—MAINTENANCE TIME LIMITATIONS AUTHORIZATION.

A. OpSpec D088 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR parts 91 subpart K (part 91K) and 121, and operators subject to an inspection program under 14 CFR part 125, § 125.247 (as well as operators under 14 CFR part 135, § 135.411(a)(2) and those who have an Approved Aircraft Inspection Program (AAIP) requiring a maintenance time limitations manual) to use a separate approved document or approved section in the certificate holder/operator's manual. This OpSpec is issued to approve the time limitations of each maintenance task not covered under the partial reliability or Continuing Analysis and Surveillance System (CASS) program (part 125 is not included in the reliability statement) (see Volume 3, Chapters 40 and 43 for further information).

NOTE: This OpSpec may be issued in conjunction with OpSpec D075, as necessary.

B. Parts 91K, 121, and 135 Maintenance Time Limitations Authorization. Table 1 must include the following:

1) Aircraft Make, Model, and Series (M/M/S). Self-explanatory.

2) Manual/Document Name and Number. Manual name and air carrier assigned number for that manual that houses the FAA-approved time limitations for maintenance tasks not covered under the partial reliability program.

3) Manual/Document Date. List the date of the current revision of the manual.

C. Part 125 and 125M (A125 LODA) Maintenance Time Limitations Authorization: Aircraft Engine Maintenance/Overhaul Program. Table 1 must include the following:

- Registration Number,
- Serial Number,
- Approved Engine Overhaul Period, and
- Support Manual or Document.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC/MSPEC D089—MAINTENANCE TIME LIMITATIONS SECTION.

A. Operators Subject to a Continuous Airworthiness Maintenance Program (CAMP). This OpSpec authorizes operators subject to a CAMP under 14 CFR part 91, § 91.1109; 14 CFR part 121; and 14 CFR part 135, § 135.411(a)(2) requiring a maintenance time limitations manual to use a separate approved document or approved section in the certificate holder/program manager's manual (see Volume 3, Chapter 43).

NOTE: In compliance with 14 CFR part 119, § 119.49(a)(8), Time Limitations OpSpecs issued to part 135 certificate holders conducting commuter operations with aircraft not maintained under a CAMP will be issued OpSpec D073, D101, D102, D103, D104, and D105, as applicable.

B. Referenced Document(s). The referenced documents must be approved by the Administrator and must have procedures for affecting revisions and revision control acceptable to the Airworthiness principal inspector (PI) (refer to § 119.49(a)(8)).

NOTE: Each certificate holder conducting domestic, flag, or commuter operations must obtain OpSpecs containing all of the following: time limitations, or standards for determining time limitations, for overhauling, inspecting, and checking airframes, engines, propellers, rotors, appliances, and emergency equipment.

C. Maintenance Time Limitations Section. Table 1 must include the following:

1) Aircraft Make, Model, and Series (M/M/S). Self-explanatory.

2) Manual/Document Name and Number. Manual name and assigned air carrier number for that manual that houses the FAA-approved time limitations for maintenance tasks.

3) Manual/Document Date. List the date of the current revision of the manual.

NOTE: This OpSpec is to be issued only if the operator is not issued OpSpec D074 or D075.

OPSPEC D090—COORDINATING AGENCIES FOR SUPPLIER'S EVALUATION (C.A.S.E.).

A. OpSpec D090 Authorization. This OpSpec authorizes operators subject to a Continuous Airworthiness Maintenance Program (CAMP) under 14 CFR part 121 and 14 CFR part 135, § 135.411(a)(2) to become a member of the Coordinating Agencies for Supplier's Evaluation (C.A.S.E.) program.

B. Authorizing Certificate Holders to Use C.A.S.E. This OpSpec authorizes certificate holders to use C.A.S.E. as a means of qualifying a vendor for services, parts, and materials to satisfy the requirements of part 121, § 121.373 and/or § 135.431, as applicable.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC D091—REQUIREMENTS: AIR CARRIER MAINTENANCE PROVIDERS. The new term "essential maintenance" has replaced "substantial maintenance." The newly revised version of OpSpec D091, which has two tables, has replaced the former three-table addition. The new design specifically addresses the Required Inspection Items (RII). This OpSpec is issued to air carriers certificated under 14 CFR part 119 conducting operations under 14 CFR part 121.

A. Essential Maintenance. Essential maintenance encompasses any RII onwing accomplishment after any maintenance or alteration. This maintenance, if done improperly or if improper parts or materials were used, would result in a failure effect that would endanger the continued safe flight and landing of the airplane. Essential maintenance is the accomplishment of the designated air carrier inspection item onwing. Essential maintenance does not encompass any offwing maintenance.

B. Guidance.

1) Before issuing an initial OpSpec D091, or when the certificate holder adds an essential maintenance provider to the certificate holder's maintenance provider listing required by part 121, § 121.369(a), ensure that the certificate holder has conducted an onsite audit of each essential maintenance provider or the added essential maintenance provider, as appropriate. The certificate holder's onsite audit should, at least, determine that the essential maintenance provider has:

- An organization that is adequate to perform essential maintenance, and
- Competent personnel and adequate facilities and equipment for the proper performance of essential maintenance.

2) In addition, ensure that the certificate holder has provisions within its Continuing Analysis and Surveillance System (CASS) to determine that each essential maintenance provider listed in its maintenance provider listing performs essential maintenance in accordance with the certificate holder's maintenance program and manual.

C. Further Information. See Volume 6, Chapter 2, Section 40 for information about the meaning of essential maintenance and for additional, more detailed guidance for issuing this OpSpec.

D. Accomplishing Maintenance with Other Maintenance Providers. The certificate holder is authorized to make arrangements with other persons (maintenance providers) to accomplish maintenance, preventive maintenance (PM), or alterations on its behalf.

E. Listing Maintenance Providers. The certificate holder shall list in their manual system (not in this OpSpec) the maintenance providers required by § 121.369(a). Each maintenance provider shall be listed by corporate or company name, business address and location, and a general description of the contracted work, using the following categories:

1) Aircraft Maintenance.

a) Heavy Maintenance. An example of heavy maintenance is the inspection and repair of the aircraft airframe performed at specified time intervals. These intervals are based

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

upon the guidelines of the aircraft manufacturer, National Aviation Authority (NAA), FAA, or European Aviation Safety Agency (EASA), as further refined by the airline/operator. Scheduled inspections are typically based on a fixed number of flight hours. There are four levels of inspection for commercial jet aircraft, usually termed “A,” “B,” “C,” and “D” checks. “A” and “B” checks are normally considered part of line maintenance. “C” and “D” checks are classified as “heavy maintenance.”

b) Line Maintenance. Line maintenance includes light regular checks that ensure the aircraft is fit for flight, troubleshooting, defect rectification, and component replacement. Aviation Maintenance Technicians (AMT) diagnose and correct issues on the aircraft and carry out these checks on an ad hoc basis or scheduled interval. Line maintenance consists of three primary activity categories: transit checks, daily/weekly checks, and “A” checks. Historically, line maintenance included “B” checks, which rarely exist these days.

2) Aircraft Engine Work. This includes off airplane maintenance of aircraft engines.

3) Propeller Work. This includes off airplane maintenance of propellers and propeller control components.

4) Component Work. This includes off airplane maintenance of individual components.

5) Specialized Service. This includes services such as x-ray, plating, eddy current, painting, shot peening, plasma spray, composite structures maintenance, weighing, welding, etc.

F. Table 1. The certificate holder shall provide its assigned principal maintenance inspector (PMI) with the maintenance provider listing referenced in § 121.369(a). Additionally, if this listing is incorporated within a larger manual or series of manuals, the certificate holder shall provide the appropriate volume and section number to indicate where the maintenance provider listing can be found (refer to the Table 1 sample below).

Table 1

Document Name and Number	Volume/Chapter/Section

G. Table 2. The certificate holder shall make the location and name(s) of the individual(s) responsible for the listing referenced in subparagraph E1)b) available to the assigned PMI. The phone number, email address, and physical mailing address must be provided for the named individual(s).

Table 2

Name of Individual	Phone	E-Mail Address	Mailing Address	Date Updated

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC/MSPEC D092—AIRPLANES AUTHORIZED FOR OPERATIONS IN DESIGNATED REDUCED VERTICAL SEPARATION MINIMUM AIRSPACE.

A. OpSpec/MSpec D092 Authorization. This OpSpec/MSpec authorizes operators under 14 CFR parts 91 subpart K (part 91K), 121, 125, and 135 to allow certain approved aircraft to operate in Reduced Vertical Separation Minimum (RVSM) airspace.

B. Authorization for Airplanes Used for Operations in RVSM Airspace. Table 1 must include the registration number and the make, model, and series (M/M/S) of the aircraft approved for RVSM airspace.

OPSPEC D093—HELICOPTER NIGHT VISION GOGGLE OPERATIONS (HNVGO) MAINTENANCE PROGRAM.

A. OpSpec D093 Authorization. This OpSpec is issued to operators authorized to conduct Helicopter Night Vision Goggle Operations (HNVGO) under the limitations and provisions of 14 CFR part 135 and current OpSpec A050 using specific approved aircraft.

B. HNVGO Maintenance Program. OpSpec D093, Table 1 must include the aircraft registration number, serial number, and make, model, and series (M/M/S), and the name of the maintenance document with the current revision number/letter for the Night Vision Imaging System (NVIS). Additionally, the maintenance document(s) for the night vision goggles (NVG) with the current revision number/letter must be listed in the table.

Table 1 – Authorized NVIS and NVG Maintenance Documents

Aircraft Registration Number	Aircraft Serial Number	Aircraft M/M/S	STC Number	Maintenance Document for Aircraft NVIS w/ Revision Number	Maintenance Document for NVG w/ Revision Number

OPSPEC/MSPEC/TSPEC/LOA D095—MINIMUM EQUIPMENT LIST (MEL) AUTHORIZATION.

A. OpSpec/MSpec/TSpec/LOA D095 Authorization. This OpSpec/MSpec/TSpec/LOA is issued to operators under 14 CFR parts 91, part 91 subpart K (part 91K), 121, 125, 125 Letter of Deviation Authority (A125 LODA) holders, 135, and 142 authorized to use an approved minimum equipment list (MEL).

B. MEL Authorization. This table must list the make, model, and series (M/M/S) of the aircraft authorized to use an MEL. Table 1 is found on authorized D095 for those operators under parts 91, 91K, 121, 125, A125 LODA holders, 135, and 142.

1) Aircraft M/M/S. Must be filled in. Add multiple M/M/S aircraft as required.

2) Limitations and Conditions. Use if appropriate, but not required. One of the uses of this column is to allow for differentiating aircraft by registration number and/or serial

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

number in cases where just the aircraft M/M/S may not be sufficient to specify particular aircraft affected by the D095.

Table 1 – Parts 91K, 121, 125, A125 LODA Holders, 135, and 142

Aircraft M/M/S	Limitations and Conditions

OPSPEC/MSPEC/LOA D097—AGING AIRCRAFT PROGRAMS. OpSpec/MSpec/LOA D097 is for Aging Aircraft Programs for 14 CFR parts 91K, 121, and 125.

A. Issuance. The issuance of this OpSpec signifies the FAA has reviewed the operator/certificate holder/program manager's policies and procedures incorporated into their maintenance and/or inspection programs for compliance with the Aging Aircraft Program rules. Table 1 of D097 will consist of three columns that list:

- The Aging Aircraft Program rules;
- The manual and section where the policy and procedures are located for the applicable Aging Aircraft Program; and
- The date of the manual and section where the current policy and procedures are located for the applicable Aging Aircraft Program.

NOTE: Figure 3-195 below illustrates a D097 Table 1 that lists the various 14 CFR part rules. The operator/certificate holder/program manager will have a specific OpSpec D097 template for their operation.

Figure 3-195. Sample D097 Table 1 – Aging Aircraft Maintenance Programs

Aging Aircraft Program Rules	Operator/Certificate Holder/Program Manager's Maintenance and/or Inspection Program Policy and Procedures (Manual and Section)	Date
Repairs Assessment for Pressurized Fuselages — § 91.1505, § 121.1107, § 125.505		
Supplemental Inspections — § 121.1109		
Electrical Wiring Interconnection Systems (EWIS) Maintenance Program — § 121.1111		
Fuel Tank System Maintenance Program — § 121.1113		
Flammability Reduction Means — § 121.1117, § 125.509		
Fuel Tank System Inspection Program — § 91.1507, § 125.507		

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Submission to Principal Inspector (PI) for Review. Initial submission and any later revisions to the operator/certificate holder/program manager's maintenance and/or inspection program policy and procedures must be submitted to the PI for review for compliance with the Aging Aircraft Program rules.

OPSPEC/MSPEC D101—ADDITIONAL MAINTENANCE REQUIREMENTS—AIRCRAFT ENGINE, PROPELLER, AND PROPELLER CONTROL (GOVERNOR).

A. OpSpec/MSpec D101 Authorization. This OpSpec applies to all certificate holders and program managers who maintain aircraft under 14 CFR part 91, § 91.1109 and 14 CFR part 135, § 135.411(a)(1). This includes aircraft subject to an Approved Aircraft Inspection Program (AAIP) under § 135.419 (see Volume 3, Chapter 38 or Volume 2, Chapter 4).

B. Additional Maintenance Requirements. Table 1 must include the following:

- Airplane make, model, and series (M/M/S);
- Engine, propeller, and governor make and model;
- Engine, propeller, and governor maintenance document that contains the additional maintenance requirements;
- Engine, propeller, and governor time in service interval; and
- Limitations and conditions (if applicable).

OPSPEC/MSPEC D102—ADDITIONAL MAINTENANCE REQUIREMENTS—ROTORCRAFT.

A. OpSpec/MSpec D102 Authorization. This OpSpec/MSpec applies to all certificate holders/program managers who maintain aircraft under 14 CFR parts 91, § 91.1109 and 14 CFR part 135, § 135.411(a)(1). This includes aircraft subject to an Approved Aircraft Inspection Program (AAIP) under § 135.419 (see Volume 3, Chapter 38 or Volume 2, Chapter 4).

B. Additional Rotorcraft Maintenance Requirements. Table 1 must include the following:

- Rotorcraft type;
- Engine make and model;
- Engine, rotor main, and auxiliary maintenance document that contains the additional maintenance requirements; and
- Engine time in service interval.

OPSPEC D103—ADDITIONAL MAINTENANCE REQUIREMENTS—SINGLE-ENGINE INSTRUMENT FLIGHT RULES (SEIFR).

A. OpSpec D103 Authorization. This OpSpec applies to all certificate holders maintaining aircraft under 14 CFR part 135. Part 135, § 135.411(c) requires the air carrier that uses a single-engine aircraft in passenger-carrying IFR operations to maintain the aircraft in accordance with § 135.421(c), (d), and (e).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Additional SEIFR Maintenance Requirements. Table 1 must include the following:

- Registration number;
- Serial number;
- Aircraft make, model, and series (M/M/S);
- Maintenance instructions/document that contains the additional maintenance requirements; and
- Other limitations as necessary (e.g., engine trend monitoring, oil analysis program, etc.).

OPSPEC/MSPEC D104—ADDITIONAL MAINTENANCE REQUIREMENTS—EMERGENCY EQUIPMENT.

A. OpSpec/MSpec D104 Authorization. This OpSpec/MSpec applies to all certificate holders/program managers maintaining aircraft under 14 CFR part 135, § 135.411(a)(1). This includes aircraft subject to an Approved Aircraft Inspection Program (AAIP) under § 135.419 (see Volume 3, Chapter 38 or Volume 2, Chapter 4).

B. Additional Emergency Equipment Maintenance Requirements. Table 1 must include the following:

- Emergency equipment items;
- Maintenance document that contains the additional maintenance requirements; and
- "Limitations and Provisions" field contains the intervals/frequency of the additional maintenance requirements (in hours, cycles, calendar-time, etc.).

OPSPEC D105—AIR CARRIER EMERGENCY EVACUATION SYSTEMS (EES) MAINTENANCE PROGRAM REQUIREMENTS.

A. OpSpec D105 Authorization. This OpSpec applies to all 14 CFR part 119 certificate holders conducting operations under 14 CFR part 121. The OpSpec must be issued to all air carriers and if their aircraft are not equipped per the Type Certificate Data Sheet (TCDS), then place "NA" in the applicable section of the table. OpSpec D105 contains the conditions and requirements for emergency evacuation systems (EES) that must be met on a continuing basis for all airplanes operated under part 121. This OpSpec is one of the required OpSpecs issued to all certificate holders conducting operations under part 121.

B. Review the Operator's Program. Review the operator's program to ensure that all conditions of this OpSpec are met. If the review is satisfactory, issue the OpSpec.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

OPSPEC D106—AIRCRAFT IN LONG-TERM MAINTENANCE OR STORAGE.

A. OpSpec D106 Authorization. This OpSpec applies to all certificate holders maintaining aircraft in accordance with 14 CFR part 121 or 135 who request to hold the liability insurance coverage (required by their economic authority) in suspension on aircraft for specific periods of non-use, such as long-term maintenance or long-term storage (refer to OpSpec A501 and OpSpec D106).

B. Long-Term Maintenance or Storage. Table 1 must contain the following:

1) End of Operation. Enter the day on which the air carrier elects to cease operating the aircraft.

2) Registration Number. Enter the aircraft registration number.

3) Serial Number. Enter the aircraft serial number.

OPSPEC D301—AIRCRAFT NETWORK SECURITY PROGRAM (ANSP) AUTHORIZATION.

A. OpSpec D301. OpSpec D301 is issued to operators who use aircraft with special conditions for electronic information security that requires operator action under 14 CFR parts 121 (includes combined 121/135), 125 (including part 125 Letter of Deviation Authority (A125 LODA) holders), and 129 (only operators with U.S.-registered aircraft). This OpSpec contains the conditions that must be met for a certificate holder to operate their aircraft and lists the reference documents that contain the details of the operator's program.

NOTE: A description of aircraft requiring a special condition can be found in Volume 3, Chapter 61, Section 1.

NOTE: The Aircraft Maintenance Division, Avionics Branch (AFS-360) in cooperation with the Office of Information & Technology (AIT) Security and Privacy Risk Management Staff (AIS-020) will proactively assist the principal avionics inspector (PAI) with program evaluation and approval. AFS-360 will evaluate all initial ANSP program approvals, the addition of fleet types to an existing ANSP, or at the request of the PAI. Changes that are considered routine and do not involve an operator's computer infrastructure can be reviewed and approved by the PAI.

NOTE: Part 129 foreign operators requesting D301 authorization do not require approval from the International Programs and Policy Division (AFS-50).

B. Certificate Holder. The certificate holder is authorized to conduct operations using identified aircraft maintained in accordance with the ANSP and the limitations specified in these OpSpecs.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

C. OpSpec D301 ANSP Authorization. Table 1 must contain the following:

1) Each of the aircraft authorized to be maintained in accordance with the ANSP by make, model, and series (M/M/S).

2) The manufacturer's aircraft security document name, number, revision number, and date of revision.

NOTE: The certificate holder's ANSP requires revision within 30 days to incorporate changes when the manufacturer's aircraft security document changes. Reissuance of this OpSpec is required each time the manufacturer's aircraft security document is revised.

3) The document(s) that encompasses all elements of an ANSP. The certificate holder may have multiple manuals that encompass the ANSP. The PAI may elect to list all the manuals encompassing the ANSP or, if one manual references all the other manuals, preferably list only that particular manual.

Figure 3-194. Sample D301 Table 1 – Aircraft Authorized ANSP

Aircraft M/M/S	Manufacturer's Aircraft Security Document Name and Number	Certificate Holder's ANSP
A350-900	A350 XWB Security Handbook, D11040869, V3.1, December 4, 2014	ABC Airlines Company Manual XYZ, Chapter 46, Section 3
B747-8	Boeing Doc. No. D925U723-01, Original, November 11, 2011	ABC Airlines Company Manual XYZ, Chapter 46, Section 2
B787-8	Boeing Doc. No. D615Z008-04, Rev. A, November 25, 2009	ABC Airlines Company Manual XYZ, Chapter 46, Section 1

NOTE: Document revision levels and dates are examples only and do not reflect the current status of manufacturers' documents

OPSPEC D485. DECOMMISSIONED.

OPSPEC E096—AIRCRAFT WEIGHING. This OpSpec authorizes certificate holders operating multiengine aircraft under 14 CFR parts 91 subpart K (part 91K), 121, 125, and 135 to use one of two aircraft Weight and Balance (W&B) control programs.

A. Individual Aircraft Weights. The certificate holder is authorized under part 91K; part 121, § 121.135; part 125, § 125.91(b); and part 135, § 135.185(a) to use individual aircraft

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

weights outlined in the certificate holder's procedures for controlling the empty weight and center of gravity (CG) of its multiengine aircraft.

B. Average Fleet Aircraft Weights. The certificate holder is authorized under part 91K, § 121.153(b), or § 135.185(b)(2) to use average fleet aircraft weights outlined in the operator's W&B control program.

NOTE: This OpSpec does not authorize the use of average fleet aircraft weights for a part 135 reciprocating-powered aircraft of nine or less passenger seats. For further information, see E096 and the current edition of Advisory Circular (AC) 120-27, Aircraft Weight and Balance Control.

C. Procedures. Conduct final review of this OpSpec per the guidance in Volume 3, Chapter 47, Section 1.

D. Individual Aircraft Weight Requirements. The procedures for controlling each individual (multiengine) aircraft empty weight and CG, referenced in Table 1 must include the following:

- List of aircraft by make, model, and series (M/M/S);
- Weighing interval (do not cite regulation); and
- W&B control procedures.

E. Fleet Aircraft Weight Requirements. Fleet aircraft weights outlined in the certificate holder's W&B control program in Table 2 must include the following:

- Aircraft by M/M/S;
- Fleet weighing sample interval; and
- Fleet W&B control program.

NOTE: Parts D and E OpSpecs may be approved only by the assigned Airworthiness principal inspectors (PI) or by aviation safety inspectors (ASI) authorized by the unit supervisor to sign for the PIs in their absence. Specific paragraphs within Part A of the OpSpecs are the joint responsibility of Operations and Airworthiness PIs. Approval of Part A OpSpecs may be indicated by the signature of any one of the three assigned PIs.

RESERVED. Paragraphs 3-922 through 3-985.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 7 Part H Helicopter Terminal Instrument Procedures and Airport Authorizations and Limitations

3-986 GENERAL. Part H is issued to each operator who conducts Title 14 of the Code of Federal Regulations (14 CFR) part 91 subpart K (part 91K), 129, or 135 instrument flight rules (IFR) operations with helicopters. It is not issued to part 135 operators who conduct only fixed-wing airplane operations. Part H is not usually issued to helicopter operators who are restricted to visual flight rules (VFR)-only operations. In rare situations, operations specification (OpSpec) H120 is issued to part 135 VFR-only operators who are authorized to conduct commuter operations with helicopters.

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 Flight Standards policy division. Title 14 CFR parts 61, 91, 91K, 125 (including part 125 Letter of Deviation Authority (LODA) holders), 133, and 137 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 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. Nonstandard authorizations for part 129 foreign operators require approval from the International Program Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec/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 Flight Standards policy division. For detailed guidance on the process for obtaining approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

H101—TERMINAL INSTRUMENT PROCEDURES. H101 is issued to all helicopter operators who conduct any flight operations under IFR. IFR operators whose operations are restricted to the 50 United States (U.S.) are issued H101. If an operator is authorized to conduct only IFR helicopter operations outside of the United States, subparagraphs a(4) and b are applicable. Federal Aviation Administration (FAA) Order 8260.31, Foreign Terminal Instrument Procedures, provides direction and guidance on acceptance of foreign terminal instrument procedures, if applicable. Additional information concerning terminal instrument procedures is in Volume 4, Chapter 2.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

H102—BASIC INSTRUMENT APPROACH PROCEDURE AUTHORIZATIONS—ALL AIRPORTS. H102 specifies the types of instrument approaches the helicopter operator is authorized to conduct and prohibits the use of other types of instrument approaches. Before authorizing a type of instrument approach procedure, the principal operations inspector (POI) must ensure that the operator provides appropriate training for the types of approaches to be authorized. See Volume 4, Chapter 2, for information on required training for various types of approaches.

H103—IFR LANDING MINIMUMS OTHER THAN AIRBORNE RADAR AND CATEGORIES II AND III APPROACHES—ALL AIRPORTS. H103 specifies the lowest minimums that can be used for Category I (CAT I) nonprecision approaches. It also provides special limitations and provisions for instrument approach procedures (IAP) at foreign airports, if applicable. If the operator is not authorized to conduct operations outside the U.S., H103e is not applicable. See Volume 4, Chapter 2, for information on required training for circling maneuvers and contact approaches.

H104—HELICOPTER EN ROUTE DESCENT AREAS (HEDA). H104 is issued to all operators authorized to conduct IFR helicopter operations using helicopter en route descent procedures within specified areas of operation. It is not issued to helicopter operators who are not authorized to use helicopter en route descent procedures. Table 3-28 illustrates one method of authorizing use of a particular HEDA.

H105—ALTERNATE AIRPORT IFR WEATHER MINIMUMS. H105 is issued to all operators who conduct IFR operations with helicopters.

H106—IFR TAKEOFF MINIMUMS, HELICOPTER OPERATIONS—ALL AIRPORTS. H106 is issued to all operators who conduct IFR helicopter operations. If an operator is not authorized to conduct operations outside of the U.S., H106c should be selected. See Volume 4, Chapter 2, for information concerning requirements an operator must meet before being authorized to use lower-than-standard takeoff minimums.

H107—SPECIAL RESTRICTIONS FOR FOREIGN TERMINAL INSTRUMENT PROCEDURES. H107 is issued only when the POI (or the 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. These special restrictions to foreign terminal instrument procedures are applicable only to U.S. air carriers and part 91K operators. The purpose of these special restrictions is to establish an equivalency between the foreign terminal instrument procedure and ICAO (PANS-OPS) or U.S. (TERPS) criteria. FAA Order 8260.31 provides direction and guidance on how to place restrictions on foreign instrument procedures.

H108—CATEGORY II (CAT II) INSTRUMENT APPROACH AND LANDING OPERATIONS. (In the OpSpecs checklist, item o/s 7f will automatically select CAT II in the OpSpecs.) CAT II operations are evaluated in accordance with Volume 4, Chapter 2, Section 7, and are approved by issuance of paragraph H108. All initial CAT II operations for each operator and each aircraft used by that operator require regional office all weather operations specialist review and concurrence before the issuance of H108. This concurrence is also required before the POI may amend H108 to include an aircraft make, model, series (M/M/S) new to the

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

operator. All reductions in CAT II operating minimums for each operator and aircraft require regional office concurrence.

A. CAT II Approach and Landing Minimums and Authorized Aircraft. Each aircraft M/M/S used in CAT II operations must be listed in subparagraph H108. The lowest decision height (DH) and lowest runway visual range (RVR) authorized for each aircraft must also be specified.

B. Required CAT II Airborne Equipment. The flight instruments, radio navigation equipment, other airborne systems required by the applicable regulation, and the FAA-approved rotorcraft flight manual (RFM) for the conduct of CAT II operations must be installed and operational. The additional airborne equipment listed or referenced is also required and must be operational for CAT II operations. There are two acceptable methods of demonstrating that an aircraft is airworthy for CAT II operations: a "type design approval" obtained by a manufacturer, or an "operational demonstration" conducted by an operator.

1) Type Design Approval. The RFM (or supplement), for aircraft that have CAT II type design approval, contains a statement to the effect that the airborne systems have demonstrated the reliability and redundancy necessary for CAT II operations, in accordance with the current edition of Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach. These approved RFMs and supplements also specify that certain equipment is required for airworthiness approval of the various kinds of CAT II operations. Some of the approved RFMs also indicate that acceptable CAT II performance was demonstrated both with and without (w/wo) certain equipment (for example w/wo autothrottles). AC 120-29 also specifies that certain types of equipment are required for operational approval of the various kinds of CAT II operations (manual/autopilot). Therefore, both the RFM and AC 120-29 must be considered in determining the additional equipment that must be specified in H108.

a) Explicitly Required Equipment. Equipment that is explicitly required by the aircraft certification regulations (14 CFR parts 27 and 29), the operating regulations (parts 91 and 135) and/or the RFM should not be specified in H108. The standard text of H108 requires this equipment to be functional.

b) Non-Explicitly Required Equipment. When the RFM indicates acceptable performance both w/wo certain items of equipment not explicitly required by AC 120-29, the POI must determine how the operator intends to conduct CAT II operations and train flightcrews with those items of equipment. If the operator proposes to conduct operations both w/wo certain items of equipment (such as autothrottle, autopilot), flightcrews must be trained for both situations, and the item of equipment does not need to be listed in H108. If the operator proposes to conduct operations only when those items of equipment are functional, then those items of equipment must be specified in H108.

2) Operational Demonstration by the Certificate Holder.

a) Non-Type Design Equipment. The operational demonstration method of ensuring the airworthiness of CAT II equipment is only appropriate for aircraft and equipment

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

that do not have CAT II type design approval. The certificate holder must conduct the operational demonstration in accordance with AC 120-29. The additional equipment that must be specified in H108 is determined by considering the equipment required by the rotorcraft certification regulations (parts 27 and 29), operating regulations (parts 91 and 135), AC 120-29, and the equipment configuration used during the operational demonstration of airworthiness conducted by the operator. Equipment required by the rotorcraft certification regulations and operating regulations should not be listed in H108. Equipment required by AC 120-29, and any other items of equipment essential to the CAT II equipment configuration used in the operational demonstration of airworthiness must be listed as additional equipment in H108.

b) Manual/Autopilot Operations. Manual and/or autopilot operations must be specified for each item of equipment listed in H108. The POI accomplishes this by selecting the appropriate item of equipment. If an item of equipment is applicable to both manual and autopilot, both must be selected. If only one kind of CAT II operation is authorized, then the X's must be placed in the appropriate "Manual" or "Autopilot" column. For examples of how the items of equipment should be specified for the kind of CAT II operation.

C. Required RVR Reporting Equipment. These requirements are automatically issued in H108.

D. Pilot Qualifications. These requirements are automatically issued in H108.

E. Operating Limitations. These requirements are automatically issued in H108.

F. Missed Approach Requirements. These requirements are automatically issued in subparagraph H108.

G. Authorized Landing Areas. Airports and runways for which an operator is authorized to conduct CAT II instrument approach and landing operations are specified by H108. If the airport and runways are approved for CAT II operations in 14 CFR part 97, they should not be listed in H108 unless the POI determines that there is a need to specify a special limitation for an operator at a particular airport. If the CAT II approach procedure is published in the National Oceanic and Atmospheric Administration (NOAA) IAP flight information publication as a CAT II procedure, it is approved in part 97. Airports and runways not listed in part 97, but approved for operator use, must be specified in H108.

H109—CATEGORY III (CAT III) INSTRUMENT APPROACH AND LANDING OPERATIONS. CAT III operations are evaluated in accordance with current edition of AC 120-28, Criteria for Approval of Category III Landing Weather Minima, and this handbook (see Volume 4, Chapter 2, Section 7). POIs approve CAT III operations by issuing paragraph H109. Before a POI may issue or amend paragraph H109, the POI must coordinate with and obtain written concurrence from the appropriate regional office all weather operations (AWO) specialist. That written concurrence must contain each operation and each M/M/S of aircraft used by that operator.

A. CAT III Approach and Landing Minimums. The decision height/alert height (DH/AH) and lowest RVR authorized for each M/M/S of aircraft type must be specified in H109 for the kinds of CAT III operations authorized. CAT IIIa fail-passive operations must use a

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

50-foot DH. Most CAT IIIa/IIIb fail-operational operations use a 50- or 100-foot DH. Use of a DH in conjunction with an AH for these operations is inappropriate. Sometimes, however, a DH is required for fail-operational CAT III operations (see AC 120-28). In these situations, a 50-foot DH or less should be specified. Use of an AH in these operations is inappropriate. Table 3-29 illustrates the method for authorizing each aircraft in H109.

B. Required CAT III Airborne Equipment. The equipment required to conduct CAT III operations for each aircraft M/M/S is specified by H109b and is established in accordance with the applicable regulation, the RFM, and AC 120-28. The only acceptable method of demonstrating the airworthiness of an aircraft for CAT III operations is through type design approval obtained by a manufacturer. The RFM (or supplement), for aircraft 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. These RFMs also specify that certain equipment is required for airworthiness approval of the various kinds of CAT III operations. Some of the RFMs also indicate that acceptable CAT III performance was demonstrated both w/wo certain equipment (for example w/wo autothrottles). AC 120-28 also specifies that certain types of equipment are required for operational approval of the various kinds of CAT III operation Therefore, the POI must consider both the RFM and Volume 4, Chapter 2, Section 7, when determining the additional equipment to be specified in H109.

1) Additional Equipment. Equipment that is explicitly required by the rotorcraft certification regulations (parts 27 and 29), the operating regulations (parts 91 and 135), and the RFM should not be specified in H109. The standard text of H109 requires this equipment to be functional. Therefore, the additional equipment that must be specified in H109 is determined by cross-checking the types of equipment required by AC 120-28 for the kind(s) of CAT III operation(s) proposed against the equipment required by the regulations and the RFM. The additional equipment to be specified in H109 is not only that explicitly required by the regulations and the RFM, but also that required by AC 120-28 and the direction of the regional AWO specialist and POI.

2) Special Provisions. When the RFM indicates acceptable performance both w/wo certain items of equipment (which are not explicitly required by AC 120-28 or AWO), the POI shall specify in H109 those items of equipment that the operator intends to use. If the operator proposes to conduct operations only when those w/wo items of equipment are functional, then those items of equipment must be specified in H109.

C. Kinds of CAT III Operations. Fail-passive and/or fail-operational must be specified for each item of equipment listed in H109 for each aircraft type. POIs accomplish this by selecting the appropriate statement adjacent to each item of equipment. If an item of equipment is applicable to more than one kind of operation, it must be indicated in appropriate columns.

D. Pilot Qualifications. Minimum qualifications for rotorcraft pilots are automatically issued in H109.

E. Operating Limitations. Limitations for rotorcraft operations are automatically issued in H109.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

F. Missed Approach Requirements. These requirements are automatically issued in H109.

G. Authorized CAT III Airports and Runways. All airports and runways to which an operator is authorized to conduct instrument approach and landing operations are specified in H109. If the POI and the regional AWO determine that there is a need to specify special limitations for the operator at a particular airport (for example, SEA 16R), then those special limitations shall be specified in H109. All CAT III airport and runway approvals are approved in accordance with FAA Order 8400.8, Procedures for Approval of Facilities for 14 CFR Part 121 and Part 135 CAT III Operations; AC 120-28; and this handbook. Certain airports and runways (SEA, MSP, CVG, PIT) require the Flight Technologies and Procedures Division (AFS-400) evaluation and approval for each aircraft type. POIs must contact the regional AWO for further direction and guidance concerning the approval of CAT III airports and runways. Table 3-30 illustrates how POIs should complete H109.

H110—FLIGHT CONTROL GUIDANCE SYSTEMS FOR AUTOMATIC LANDING OPERATIONS OTHER THAN CATEGORIES II AND III.

A. POI Responsibilities. H110 authorizes an operator to use a flight control guidance system with automatic landing capabilities to touchdown. Before issuing H110, the POI must determine the following:

- The RFM permits use of the flight control guidance system (autoland system) to touchdown.
- Training on the use of the flight control guidance system and autoland procedures is provided to flightcrew members.
- The operator continually maintains flight control guidance and autoland systems in accordance with an approved maintenance program for autoland operations.

B. Helicopters. The helicopters (make/model) and the flight control guidance systems (manufacturer/model) authorized for this type of operation, must be listed in subparagraph H110. Table 3-31 is an example of how the helicopter and flight control guidance systems should be listed.

H111—MANUALLY FLOWN FLIGHT CONTROL GUIDANCE SYSTEM CERTIFIED FOR LANDING OPERATIONS OTHER THAN CATEGORIES II AND III. TBD.

H112—INSTRUMENT APPROACH OPERATIONS USING AN AREA NAVIGATION SYSTEM. TBD.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

H113—SPECIAL TERMINAL AREA IFR OPERATIONS—AUTHORIZATIONS, LIMITATIONS, AND PROVISIONS.

A. Types of Special Operations. H113 authorizes an operator to conduct the following types of special operations:

- Nonscheduled passenger and cargo and scheduled all-cargo terminal area IFR operations outside of controlled airspace.
- Scheduled passenger terminal area IFR operations outside of controlled airspace and at locations without an operating air traffic control tower.
- Use of special (non-part 97) instrument approach or departure procedures.

B. Nonscheduled Operations. Before authorizing nonscheduled terminal area IFR operations outside of controlled airspace, the POI must determine that the operator has a method or procedure for obtaining and disseminating necessary operational information. This operational information must include the following:

- The airport is served by an authorized instrument approach procedure (and departure procedure when applicable);
- Applicable charts for crewmember use;
- Operational weather data from an approved source for control of flight movements and crewmember use;
- Status of airport services and facilities at the time of the operation; and
- Suitable means for pilots to obtain traffic advisories.

H114—SPECIAL AIRPORT AUTHORIZATION, PROVISIONS, AND LIMITATIONS FOR CERTAIN AIRPORTS.

A. General. OpSpec H114 provides for special helicopter authorizations into certain airports. The authorizations include the following:

1) Part 135 air carriers to conduct helicopter operations into airports that because of special operational considerations may require special aircraft performance charts and equipment, special lighting (flare pots, etc.), or special helipads and special flightcrew member training. These 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 performance requirements;

c) Airports in or near precipitous terrain, and

d) Airports with unpaved runways or runways constructed on frozen lakes and rivers.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) For authorizing part 135 air carriers to conduct helicopter operations using the Reginald Bennett International 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) 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:

1. Each pilot must receive initial and recurrent training in accordance with his or her company-approved training program.

2. Initial training must be completed by each person (both ground and flight personnel) prior to that person's participation with this authorization.

3. Recurrent training must be completed within each subsequent 12 calendar-months.

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.

c) Table 3-27, the sample below 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 1 of OpSpec H114.

B. Authorizations Where Other OpSpecs May Be Applicable.

1) OpSpec H122 should be used for listing the airports/runways where AFS-400 has approved specific "Special" instrument procedures for a certificate holder.

2) OpSpec H107 is applicable for authorizing specific foreign terminal instrument procedures.

3) OpSpec H121 is applicable for authorizing a certificate holder to conduct helicopter operations in airport terminal areas in Class G and E airspace.

C. Airport Requirements. The requirements of 14 CFR § 135.229, Airport Requirements, must be met.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Table 3-27. Sample of Airports and Special Provisions

Airport Location/Identifier	Special Provisions and Limitations and Special Flightcrew Member Training
PKEK, Ekwok, Alaska	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.
Tahiti Island, Society IS; PPT/NTAA	Approved as destination airport without an available alternate.

H117—CAT I, ILS, MLS, OR GLS APPROACH PROCEDURES WITH SPECIFIC IFR LANDING MINIMUMS. H117 prescribes conditions and limitations for straight-in CAT I precision IAP. It also provides special limitations and provisions for IAP at foreign airports if the operator is authorized to conduct operations outside the United States in B050. See Volume 4, Chapter 2 for information on required training for precision approaches.

H118—HELICOPTER CIRCLE-TO-LAND MANEUVERS USING IFR CAT I LANDING MINIMUMS. H118 prescribes the lowest minimums that can be used for CAT I circling maneuvers. See Volume 4, Chapter 2 for information on required training for circling maneuvers.

H119—HELICOPTER IFR CONTACT APPROACHES USING IFR CATEGORY I LANDING MINIMUMS. H119 prescribes the lowest minimums that can be used for CAT I contact approaches. See Volume 4, Chapter 2 for information on required training for contact approaches.

H120—AIRPORTS AUTHORIZED FOR SCHEDULED OPERATIONS.

A. OpSpecs. Under 14 CFR part 119, the OpSpecs must prescribe the authorizations and limitations for each type of operation. All regular, provisional, and refueling airports shall be listed in the OpSpecs of all operators conducting scheduled operations. This includes helicopter commuter operations. The operator may provide a list of these airports which can be incorporated into the OpSpecs by reference to the list in H120.

B. Template. If the airports are to be listed in H120, the OpSpecs worksheet and computer provide a template for the information that must be listed. This information includes the following:

- Airport name.
- Three-letter identifier of the airport, if available.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- Aircraft authorized to use the airport. (Normally, the operator's aircraft can be listed in the seven spaces provided at the top of the "Authorized Aircraft" column.)
- A notation that the airport is a regular airport (R) for the type of aircraft authorized.

C. Info Format. Table 3-32 is an example of how this information can be formatted:

NOTE: If an airport is designated as provisional, the regular airport for which it serves as a provisional airport must be annotated. (Except in unique situations, an airport should not be designated as a provisional airport if it is located more than 30 statute miles from the regular airport.)

D. Airports. If the operator provides a list of airports to be incorporated into H120, this list must provide the same type of information previously discussed. This list must be annotated with the effective date of the listing. The list does not need to be physically attached to H120, but it must be maintained on file in the certificate-holding district office (CHDO) with copies of the operator's OpSpecs. If a list is provided by the operator, no entries should be made on the OpSpecs worksheet or in the computer. If no entry is made, the computer will automatically print "See Attached Listing" below the text of H120.

E. List of Alternate Airports. H120 specifies that the operator must maintain a list of alternate airports that can be used. The list of alternates may be integrated into the list provided by the operator, if desired. If a separate list of alternate airports is maintained by the operator, it is not necessary for the FAA to maintain a copy. The POI, however, should occasionally inspect the list of alternates to determine airport and aircraft compatibility.

H121—SCHEDULED PASSENGER TERMINAL AREA IFR ROTORCRAFT OPERATIONS IN CLASS G AIRSPACE.

A. Scheduled Operations. Before authorizing scheduled terminal area IFR helicopter operations outside of controlled airspace, or at airports without an operating air traffic control tower, the POI must obtain and list the following information in H113.

- Names of airports.
- Source of weather information to be used by flightcrews (see Volume 3, Chapter 26, Section 4).
- Sources of traffic and airport advisories.

B. Sources of Traffic and Airport Advisories. Certificate holders may be authorized to use any two-way radio source of air traffic advisory information listed in the Airman's Information Manual (AIM) (for operations in U.S. airspace) or equivalent aeronautical information publications (for foreign operations).

1) These sources include common traffic advisory frequencies, unicom, multicom, and Flight Service Stations (FSS).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) If an air traffic advisory source is also suitable for determining the status of airport services and facilities, it is the only source that needs to be listed in H121.

3) When airport services and facilities information is on a different frequency than the traffic advisory frequency, both sources should be listed in H121.

4) 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 traffic advisory frequency when operating within ten nautical miles of the airport. The procedures should require communication concerning airport services and facilities to be completed while more than 10 miles 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.

H122—SPECIAL TERMINAL INSTRUMENT APPROACH OR DEPARTURE PROCEDURES. Volume 3, Chapter 18, Section 5 guidance for operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) C081 provides guidance on how to authorize a certificate holder to fly special terminal instrument approach or departure procedures. Contact the regional Flight Standards division (RFSD) NextGen Branch (RNGB) for the geographic area of the airport/heliport for more information.

Table 3-28. Example List of HEDA with LAA

Authorized Helicopter En Route Descent Areas	Lowest Authorized Altitude (LAA)	Remarks, Limitations, and Conditions
Eugene Island Block 191	400 Ft.	Increase LAA to 700 Ft. with radar altimeter or mapping radar inoperative

Table 3-29. CAT IIIa Fail—Passive Operations

1. CATEGORY 111a FAIL-PASSIVE OPERATIONS		
AIRCRAFT TYPE MAKE/MODEL/SERIES	DH/AH	LOWEST AUTHORIZED RVR
BH-222	50 DH	700
2. CATEGORY IIIa FAIL-OPERATIONAL OPERATIONS		
AIRCRAFT TYPE MAKE/MODEL/SERIES	DH/AH	LOWEST AUTHORIZED RVR
SK-76	100 AH	700
3. CATEGORY IIIb FAIL-OPERATIONAL OPERATIONS		
AIRCRAFT TYPE MAKE/MODEL/SERIES	DH/AH	LOWEST AUTHORIZED RVR
SK-76	100 AH	300

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Table 3-30. Example List of Runway Special Limitations by Airport

AIRPORT	RUNWAYS	SPECIAL LIMITATIONS
William B. Hartsfield Atlanta, GA (ATL)	8L, 8R	

Table 3-31. Example List of Flight Control Guidance Systems by Aircraft

AIRCRAFT TYPE (MAKE/MODEL)	FLIGHT CONTROL GUIDANCE SYSTEM (MANUFACTURER/MODEL)
S-76	Astronautics P/N 131810
Bell 222	Sperry SHZ-222

Table 3-32. Example List of Aircraft Authorized by Airport

AIRPORT NAME	IDENT	AIRCRAFT AUTHORIZED					P. FOR IDENT
		SK61	BH222				
Albany County	ALB	R	R				
John F. Kennedy Intl.	JFK	R	R				
La Guardia	LGA	R	R				

HSPEC/LOA H123—CLASS I NAVIGATION USING AREA OR LONG-RANGE NAVIGATION SYSTEMS WITH WIDE AREA AUGMENTATION SYSTEM (WAAS) FOR ROTORCRAFT REQUIRED NAVIGATION PERFORMANCE (RNP) 0.3 EN ROUTE AND TERMINAL OPERATIONS.

A. Purpose. This authorization is applicable to operators conducting operations under 14 CFR parts 91 subpart K (part 91K) and 135. The H123 templates are used to authorize an operator to conduct Class I navigation using an area navigation (RNAV) system augmented by the WAAS for RNP 0.3 rotorcraft operations. H123 is also applicable to certificate holders/operators/program managers conducting operations using 14 CFR part 97 U.S. instrument flight rules (IFR) RNAV for RNP 0.3 rotorcraft terminal operations including RNP 0.3 departure procedures (DP), Obstacle Departure Procedures (ODP), Standard Instrument Departures (SID), and Standard Terminal Arrival Routes (STAR).

B. Equipment and Training. If an operator's rotorcraft is properly equipped and its flightcrews are trained to conduct RNP 0.3 operations, then authorization should be selected from Table 3-32A.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

Figure 3-220. Sample H123 Table 1 – Rotorcraft, RNAV Equipment, and RNP 0.3 Authorization

Rotorcraft	Compliant RNAV System(s) and Software			Navigation Specification(s)	Additional Capabilities	Limitations and Provisions
M/M/S	Manufacturer	Model/HW Part #	Software Part/Version Number			
BHT-412-412	King KLN	900		RNP 0.3/A-RNP	FRT/TOAC	
ECD-EC135-T2+	Garmin GNS	430/530		RNP 0.3/RF		
MBB-BK117-C2	Garmin GNS	430/530		RNP 0.3		

C. Bundling.

1) Qualification Bundles. Every effort should be made to bundle qualifications within the hierarchy of an OpSpec/MSpec, where applicable, and also combine other OpSpecs/MSpecs as desired by qualified operators.

2) Bundling RNP 0.3 and Advanced RNP (A-RNP). If an operator's aircraft is eligible (properly equipped) and its flightcrews are appropriately trained to conduct both RNP 0.3 and A-RNP, enter the aircraft make, model, and series (M/M/S), navigation equipment, and RNP 0.3 and A-RNP in the Navigation Specification(s) column or, if not A-RNP qualified, enter RNP with Radius to Fix (RF) or RNP 0.3 only.

D. A-RNP Authorization. Table 3-32A specifies A-RNP capabilities the operator is authorized to conduct under IFRs. In the automated Web-based Operations Safety System (WebOPSS), the principal operations inspector (POI) will select A-RNP, if applicable. A-RNP is defined in the United States by the following three operational and functional capabilities: scalability, RF, and parallel offset. Additionally, A-RNP operators must be able to meet the continuity requirements of a given operation.

E. Additional Capabilities. Fixed Radius Transitions (FRT) and/or Time of Arrival Control (TOAC) may be selected in Table 3-32A under additional capabilities for those who qualify for A-RNP.

F. Direct Questions to AFS-470. For questions, contact the Performance Based Flight Systems Branch (AFS-470).

G. Determining Eligibility. Advisory Circular (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

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

in AC 90-105, Appendix D. If the operator is unable to determine that the rotorcraft is eligible, the operator must provide the following:

- RNAV system make, model, and part number(s);
- Evidence of compliance with AC 90-105 requirements;
- Crew operations procedures (Refer to Appendix D, AC 90-105);
- Crew training program (Refer to Appendix D, AC 90-105); and
- Any other pertinent information.

1) Based on the information supplied by the operator, the POI must coordinate with the principal avionics inspector (PAI) to determine equipment eligibility for RNP 0.3.

a) The PAI determines the proper nomenclature of the manufacturer's make/model/software version and that the RNP 0.3 system is installed in accordance with approved data and meets the criteria of AC 90-105.

b) If the CHDO is unable to determine equipment eligibility for RNP 0.3, contact AFS-470 for guidance.

2) The following are rotorcraft RNP 0.3 qualification methods for operational system requirements:

a) A statement of compliance with criteria from AC 90-105 and the current edition of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems, included in the Rotorcraft Flight Manual (RFM) or RFM Supplement (type certificate (TC) or Supplemental Type Certificate (STC) holder). Rotorcraft conducting RNP 0.3 operations must have an airworthiness approval for Satellite-based Augmentation System (SBAS) based IFR operations. Any limitations required for IFR operations will also apply to RNP 0.3 operations.

b) Rotorcraft without a statement from the manufacturer documenting compliance must meet the following criteria:

1. Global Positioning Satellite (GPS) standalone systems should be approved in accordance with Technical Standard Order (TSO)-C146a or later operational class 1, 2, or 3 (RTCA/DO-229C) and meet the functionality requirements of Appendix D of AC 90-105. GPS systems must be installed for IFR operations in accordance with AC 20-138.

2. Rotorcraft with TSO-C145a or later installed with a flight management system (FMS) that meets the requirements of TSO-C115b or later and is installed for IFR use in accordance with AC 20-138.

3) Existing manufacturer compliance findings and operator approvals that follow regulatory guidance consistent with the navigation specifications (Nav Spec) for RNAV 1, RNAV 2, RNAV 5, Required Navigation Performance Approach (RNP APCH), and RNP 1 are not impacted by this Nav Spec for the associated operations. If a manufacturer or operator has already obtained such approvals, a re-examination of the rotorcraft or operator for those operations relative to RNP 0.3 by the FAA is unnecessary. In this latter case, the manufacturer

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

and operator may only need to undertake the RNP 0.3 airworthiness qualification and operator criteria to facilitate acceptance and flexibility for new applications predicated upon RNP 0.3 capability or performance not covered by existing Nav Specs.

H. Procedures. Procedures utilized under this approval should be outlined in the appropriate operations manual or outlined in OpSpec/LOA A008, as applicable.

I. RNP 0.3 DPs and STARs. AC 90-105 provides detailed guidance for certificate holders/operators/program managers regarding operations on RNP 0.3 DPs and STARs.

RESERVED. Paragraphs 3-987 through 3-1025.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 6 SURVEILLANCE

CHAPTER 2 PARTS 121, 135, AND 91 SUBPART K INSPECTIONS

Section 20 Part 121 Pilot-in-Command (PIC) Operating Experience Observations (PTRS Codes 1356 and 1645)

Source Basis: Section 121.434, Operating Experience, Operating Cycles, and Consolidation of Knowledge and Skills.

6-605 GENERAL. This section contains direction and guidance to be used by Operations inspectors for conducting Operating Experience (OE) observations as required by Title 14 of the Code of Federal Regulations (14 CFR) part 121, § 121.434(c)(1)(ii). A Federal Aviation Administration (FAA) inspector must observe a pilot who is qualifying as a pilot in command (PIC) in an initial new-hire, initial equipment, or an upgrade curriculum. The inspector must observe the pilot while the pilot is performing the prescribed duties of a PIC before serving unsupervised in revenue service. This observation is conducted while the candidate is acquiring OE. The purpose of this observation is to ensure that the transfer of learning from training to line operations has occurred and that the candidate has acquired the skills and judgment necessary to effectively perform PIC responsibilities.

6-606 SCHEDULING POLICIES. The following policies apply to scheduling § 121.434(c)(1)(ii) observations.

A. Inspector Qualifications. See Volume 1, Chapter 3, Section 6.

B. Scheduling Prerequisites. The FAA observation is not the line check required by § 121.440; therefore, the inspector does not have to observe a line check being administered by the check pilot. The preferred procedure is for an FAA inspector to observe the PIC's performance during the latter stages of OE. Earlier observation, though allowed, may result in a need for additional observation. The principal operations inspector (POI) should coordinate with the operator for effective scheduling of OE observations to preclude the need for followup observations.

6-607 PRACTICES AND PROCEDURES. The following practices and procedures must be observed by inspectors while observing PIC candidates.

A. Introduction. The inspector will meet the crew and gain access to the aircraft through the normal procedures for conducting en route inspection. In addition, the inspector must discuss the conduct of the flight with both the check pilot and the candidate and review the candidate's progress to date. During the discussion, the inspector should ensure that the check pilot and the candidate understand the following information:

1) The FAA recognizes that the check pilot is the PIC. The candidate, however, is expected to perform all of the duties of the PIC. The check pilot is expected to act as a qualified second in command (SIC).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

2) As the actual PIC, the check pilot is ultimately responsible for the safety of the flight. Should a situation arise that involves in-flight safety, the check pilot must take charge of the situation.

B. Conduct of the Observation. The inspector who performs the observation should evaluate the items specified in Volume 6, Chapter 2, Section 9. The inspector should be as unobtrusive as possible during the flight and avoid intruding into the interaction between crewmembers. The inspector should not conduct oral examinations during the flight. Should an event occur that raises a question about the candidate's knowledge, the inspector should take notes and make inquiries after the flight.

C. Postflight Procedures. After the flight, the check pilot and the inspector should conduct a debriefing. The check pilot's comments are beneficial, as the check pilot is more familiar with specific company procedures.

1) If the candidate's performance during the flight meets the required standards, the inspector must inform the candidate and the check pilot that the observation is complete. If the candidate's performance does not yet meet required standards, the inspector must indicate the areas in which the candidate's performance needs to improve and that another observation has to be made before the candidate can enter revenue service as a PIC. The inspector should inform the candidate that, before the next observation, the candidate must receive further training or OE, and a check pilot must again certify that the candidate is ready for the observation.

2) If the inspector has indicated to the candidate that the observation is incomplete because the candidate's performance has not yet reached required standards, the inspector should contact the POI by telephone and provide a description of the candidate's performance so that the POI can take followup action.

6-608 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) INPUT.

A. Complete Observation. The observation of a check pilot conducting OE for a flightcrew member, in conjunction with the requirement of § 121.434(c)(1)(ii), is recorded in the PTRS by using activity code 1645 (check airman surveillance), with 1356 in the tracking field. When the 1645 activity code is used, the check pilot must be entered in section I. A separate PTRS entry must be made by using the activity code 1356, with 1645 in the tracking field. When the 1356 activity code is used, the qualifying PIC must be entered in section I. This method of using two PTRS entries is unique to the OE observation activity.

B. Incomplete Observation. The inspector should report an incomplete observation in the PTRS as an en route inspection (activity code 1624) with appropriate comments.

RESERVED. Paragraphs 6-609 through 6-623.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 8 GENERAL TECHNICAL FUNCTIONS

CHAPTER 2 TECHNICAL GROUPS, BOARDS, AND NATIONAL RESOURCES

Section 2 Aircraft Evaluation Division

8-40 GENERAL. This section outlines the roles and responsibilities of the Aircraft Evaluation Division (AFS-100), which is a technical resource for aviation safety inspectors (ASI). AFS-100 serves as Flight Standards Service technical subject matter experts (SME) for operational and engineering activities. AFS-100 ASI specialties are in operations and airworthiness (i.e., maintenance and avionics). AFS-100 also serves as a liaison with the Aircraft Certification Service (AIR) Aircraft Certification Offices (ACO) during the initial certification of an aircraft and continues throughout the service life of the aircraft.

NOTE: Due to the 2017 Flight Standards office realignment, Aircraft Evaluation Groups (AEG) have become AFS-100. However, using the term "AEG" to refer to a specific AFS-100 office is acceptable.

A. Background. The Federal Aviation Administration (FAA) established the AEG to provide Aircraft Certification Directorates support for the managing of aircraft certification programs. The AEG also assists in the oversight of continued airworthiness and operational aspects of the aircraft throughout its operational life.

1) FAA Order 8000.51, Aircraft Certification Directorates' Delegation of Authority, established the Aircraft Certification Directorate system in 1982. To implement the directorate concept, it was necessary to realign certain functions previously performed by regional Flight Standards divisions (RFSD), the Air Transportation Division (AFS-200), and the Aircraft Maintenance Division (AFS-300) in FAA headquarters (HQ).

2) Formerly, each RFSD, with operational responsibilities for Flight Operations Evaluation Boards (FOEB), Flight Standardization Boards (FSB), and Maintenance Review Boards (MRB) handled by the same division, performed its respective certification functions. Board members from regions having operators that place the new aircraft in service assist the RFSDs.

a) AIR has four certification directorates:

- Transport Airplane,
- Engine and Propeller,
- Small Airplane, and
- Rotorcraft.

b) The RFSD provides all technical services to the directorates through its AEG. FAA Order FS 1100.1, Flight Standards Service Organizational Handbook, contains the AEG mission and functional statements, and specifies responsibility for establishing and conducting operations and maintenance technical boards.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

c) FAA Order 8900.1 contains current instructions and guidelines for the AEGs concerning the various operations and maintenance boards, and complements other guidance concerning the Aircraft Certification Directorate system. These boards encompass all U.S.-registered aircraft and foreign-manufactured (State of Design Holder) aircraft certificated for operation by U.S. air carriers and operators.

d) It should be noted the Engine and Propeller Directorate is unique in that its certificated products are incorporated into aircraft certificated by other directorates. References to "aircraft" in this chapter also include engines and propellers, as appropriate.

B. AEG ASI Role. AFS-100 specialists are fully qualified Flight Standards ASIs and are SMEs in their fields. The AEG ASIs work with Flight Standards, AIR, and industry personnel during the certification process and throughout the operational life of the aircraft. AEG ASIs evaluate, as appropriate:

- Aircraft, engine or propeller, and associated systems for operational and maintenance suitability evaluations.
- Flightcrew type rating requirements (via the FSB).
- Minimum equipment required for dispatch (via the FOEB).
- Continued airworthiness (via the MRB and Maintenance Type Board (MTB)).
- Instructions for continued airworthiness (ICA).
- Airworthiness Directives (AD), alternate methods of compliance (AMOC), and mandatory continuing airworthiness information.

8-41 AEG ASI RESPONSIBILITIES. An AEG ASI has a variety of responsibilities, which includes, but is not limited to, the following:

A. Airworthiness Maintenance ASIs.

1) Participate in the Type Certification Board (TCB) as a board member to make decisions related to maintenance of aircraft produced by the aircraft manufacturer.

2) Serve as a maintenance representative on FOEBs.

3) Serve as MRB Chairman. For details, see Volume 8, Chapter 2, Section 7.

4) Serve as a focal point for maintenance information on assigned aircraft and powerplant related to achievement of reliability and evaluation of maintenance requirements. Maintenance requirements include:

- Service Difficulty Reports (SDR)/Malfunction and Defect Reports (M&D),
- Alert Service Bulletins (SB),
- National Transportation Safety Board (NTSB) and FAA safety recommendations,
- FAA HQ,
- Safety Alerts for Operators (SAFO),
- ADs,

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- AMOCs,
- Mandatory continuing airworthiness information,
- Accident and incident reports,
- Time between overhaul (TBO) escalation,
- Repair specification data, and
- Extended Operations (ETOPS).

5) Provide AEG outreach during AD development. For details, see Volume 8, Chapter 2, Section 9.

6) Provide expert consultation in support of accident and incident investigations, analysis, and implementation of corrective actions related to assigned aircraft/powerplant.

7) Perform aircraft maintainability evaluations to determine the acceptability of ICAs.

8) As assigned members of the Organization Management Team (OMT), supervise Organization Designation Authority (ODA) delegation and assist in approving ODA manuals. AEG representatives review the ICAs and support the ACOs regarding yearly technical inspections.

9) Evaluate conformance to operational suitability and maintenance requirements.

10) Provide technical support, as a Flight Standards liaison, to ACOs/Engine Certification Offices (ECO).

11) Evaluate the aircraft, its systems, and the manufacturer's recommended procedures for unique operational characteristics.

12) Validate maintenance procedures for product manufacturers by ensuring a product meets established standards through sampling and teardown.

13) Evaluate to determine the acceptability of ICAs of new and modified products, and evaluate ICAs provided by foreign regulatories for harmonization.

14) Approve changes to Maintenance Steering Group – 3rd Task Force (MSG-3) analysis for task optimization/evolution.

15) Serve as a resource specialist for principal maintenance inspector (PMI) councils.

16) Participate in the activities of the International Maintenance Review Board Policy Board (IMRBPB), attending meetings as directed by AFS-300, and in the activities of the FAA MRB Policy Board (MRBPB), attending meetings as directed by office management.

17) At the request of AFS-300, participate in Aviation Rulemaking Advisory Committee (ARAC) and Aging Transport Systems Rulemaking Advisory Committee (ATSRAC) studies.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

18) Work with, evaluate, and formulate the use of new technologies (e.g., software, structural health monitoring, composites, electronic flight bag, etc.).

19) Evaluate proposed advisory circulars (AC) and orders, as required.

B. Avionics ASIs.

1) Participate in the TCB as a board member to make decisions related to maintenance of aircraft produced by the aircraft manufacturer.

2) Serve as an avionics representative on FOEBs.

3) Serve as a focal point for maintenance information on assigned aircraft and powerplant related to achievement of reliability and maintenance requirements. Maintenance requirements include:

- SDRs,
- Alert SBs,
- NTSB and FAA safety recommendations,
- FAA HQ,
- SAFOs,
- ADs,
- AMOCs,
- Mandatory continuing airworthiness information, and
- Accident and incident reports.

4) Provide AEG outreach. For details, see Volume 8, Chapter 2, Section 9.

5) Provide expert consultation in support of accident investigations, incident investigations, analysis, and implementation of corrective actions related to assigned aircraft/powerplant.

6) Perform aircraft maintainability evaluations to determine the acceptability of ICAs.

7) As assigned members of the OMT, supervise ODA delegation and assist in approving ODA manuals. AEG representatives review the ICAs and support the ACOs regarding yearly technical inspections.

8) Provide technical support, as a Flight Standards liaison, to the ACOs.

9) Evaluate the aircraft/powerplant systems and the manufacturer's recommended procedures for unique operational characteristics.

10) Evaluate to determine the acceptability of ICAs of new and modified products, and evaluate ICAs provided by foreign regulatories for harmonization.

11) Ensure a product meets established standards through sampling and teardown.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

12) Serve as a resource specialist for principal avionics inspector (PAI) councils—Advisory Group.

13) Evaluate proposed ACs and orders, as required.

C. Operations ASIs.

1) Participate in the TCB as a board member to make decisions related to aircraft systems and configuration by assessing operational suitability requirements that can/will be met during the aircraft design and type certification process.

2) Evaluate and determine the minimum flightcrew member training, checking, and currency requirements used for the development of an aircraft FSB report.

3) Participate in flightcrew complement determinations and evaluate aircraft for new/common/same type rating.

4) Establish special training requirements for unique flight characteristics.

5) Establish pilot type rating needs and requirements.

6) Develop and revise the Master Minimum Equipment Lists (MMEL).

7) Serve as the MMEL Industry Group (MMEL-IG) co-chairperson. This position will serve as the FAA liaison between the MMEL-IG and the FAA to coordinate reviews and approvals of MMEL Policy Letters (PL).

8) Provide operational guidance for ADs and SDRs.

9) Review and evaluate Airplane Flight Manual (AFM) and Rotorcraft Flight Manual (RFM) and supplements.

10) Serve as Chairman for FSBs and FOEBs for assigned aircraft.

11) Conduct initial flight checks of Flight Standards operations ASIs, aircraft manufacturer's initial pilot cadre, initial operator pilots, and FAA engineering flight test pilots for aircraft type.

12) Coordinate with the National Simulator Program (NSP) on the evaluation of data packages for aircraft flight simulation design, acceptance, and approval.

13) Evaluate proposed ACs and Orders, as required.

8-42 ACCIDENT OR INCIDENT INVESTIGATION SUPPORT. When accidents or incidents involving AEG-assigned aircraft occur, investigating Flight Standards offices should use the experience of AEG ASIs to support the investigation or to develop corrective actions. These AEG ASIs are assigned to aircraft types and are able to address operational safety concerns, such as crew procedures, flight operations, maintenance, and, to a limited extent, human factors (HF).

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

8-43 BOARDS CONDUCTED BY AFS-100. AFS-100 provides many of its technical services through the FOEBs, FSBs, and MRBs. Membership on MRBs, however, is restricted to Airworthiness and Avionics ASIs. Volume 8, Chapter 2 covers current instructions and guidelines for conducting these boards. These boards encompass all U.S.-registered aircraft and foreign-manufactured aircraft certificated for operation by U.S. air carriers and operators.

8-44 AFS-100 ISSUE PAPERS (IP). AFS-100 develops IPs as a means for identifying and resolving significant technical, regulatory, and administrative issues occurring during the type certification or type validation processes. IPs provide a structured means for describing and tracking the resolution of significant issues occurring during a project.

NOTE: AFS-100 IPs must be developed and tracked using the procedures defined in FAA Order 8110.112, Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums, when an IP is required. Additionally, IPs must be coordinated with the applicable primary aircraft certification office (PACO) project officer/project manager.

8-45 AFS-100 Branches. The AFS-100 branches and their functions are as follows:

A. Propulsion and Auxiliary Power Unit (APU) Branch (EA-67), Burlington, Massachusetts. This AEG is responsible for aircraft engines and propellers certificated under Title 14 of the Code of Federal Regulations (14 CFR) parts 33 and 35.

B. Rotorcraft and Powered Lift Branch (SW-25), Fort Worth, Texas. This AEG is responsible for rotorcraft certificated under 14 CFR parts 27 and 29, and vertical lift.

C. Small Aircraft Branch (CE-60), Kansas City, Missouri. This AEG is responsible for those airplanes certified under 14 CFR part 23, including commuter category airplanes and Special Federal Aviation Regulation (SFAR) 41 airplanes, some small airplanes certificated under 14 CFR part 25, and gliders and airships.

D. Transport Aircraft Long Beach Branch (NM-15), Long Beach, California. This AEG is responsible for part 25 airplanes, such as Bombardier and Gulfstream.

E. Transport Aircraft Seattle Branch (NM-17), Seattle, Washington. This AEG is responsible for part 25 airplanes, such as Boeing and Airbus.

NOTE: FAA certification of foreign-built aircraft is handled by the AFS-100 branch responsible for that particular aircraft (e.g., SW-25 for foreign-built helicopters).

RESERVED. Paragraphs 8-46 through 8-61.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 8 GENERAL TECHNICAL FUNCTIONS

CHAPTER 5 GENERAL AIRWORTHINESS AND AVIONICS TECHNICAL FUNCTIONS

Section 9 Reserved

RESERVED. Paragraphs 8-500 through 8-517.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

VOLUME 8 GENERAL TECHNICAL FUNCTIONS

CHAPTER 6 PERFORM TELEPHONE AVAILABILITY

Section 1 Perform Assigned Telephone Availability

8-552 PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Operations: 1040.

B. Maintenance: 3040.

C. Avionics: 5040.

D. Cabin Safety: 1040.

8-553 OBJECTIVE. This section advises aviation safety inspectors (ASI) to perform assigned telephone availability according to national and office policies and procedures.

8-554 GENERAL.

A. Definition.

1) "Accident availability" or "telephone availability" is a periodic interval of time where an inspector remains available by telephone for notification, and subsequent investigation, of an aviation accident, incident, complaint, or possible noncompliance. In this section, accident availability and telephone availability are used interchangeably since the procedures are identical. However, accident availability usually refers to in-office duty, while telephone availability refers to duty during evenings, weekends, and holidays.

2) Each Flight Standards office should develop accident procedures for use by ASIs while on telephone availability duty.

B. Office Procedures. Flight Standards office accident procedures should include at least the following:

1) Procedures for notification to the appropriate areas by the ASI;

2) Procedures for the conduct and actions of the ASI during the accident investigation;

3) Appropriate telephone numbers (e.g., the National Transportation Safety Board (NTSB) and the Accident Investigation Division (AVP-100));

4) Copy of telephone availability schedule;

5) Federal Aviation Administration (FAA) Form 1360-33, Record of Visit, Conference, or Telephone Call;

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

6) FAA Form 8020-9, Aircraft Accident/Incident Preliminary Notice;

7) FAA Form 8020-23, FAA Accident/Incident Report;

8) NTSB Form 6120.1, Pilot/Operator Aircraft Accident/Incident Report;

9) Map of office geographic boundaries; and

10) Airport access gate information to the airports in jurisdiction (e.g., code numbers and cards).

C. Schedule Preparation. The preparation of the office telephone availability schedule is the responsibility of the Flight Standards office manager. The schedule should be prepared and distributed before the beginning of each quarter of the calendar-year. This will allow inspectors to schedule their task and leave time and still ensure adequate telephone availability coverage. The office should have procedures whereby clerical personnel have the telephone availability list. The Regional Operations Center (ROC) must receive a copy of the telephone availability schedule.

D. Schedule Changes. If an inspector must change his or her assigned telephone availability period (e.g., for scheduled training), it is the inspector's responsibility to effect the change with another inspector. Changes in the schedule are subject to the approval of the office manager. The inspector must notify the unit supervisor, clerical personnel, and the ROC of any changes in the schedule. This notification must include the following information:

- The name of the inspector requesting the change,
- The date the change notification was submitted,
- The affected days and dates of the change,
- The name of the inspector providing coverage, and
- The telephone number of the inspector providing coverage.

E. Telephone Conduct. The inspector should be courteous and tactful when dealing with fellow agency employees, other government and law enforcement personnel, and the general public during telephone conversations.

8-555 TYPES OF TELEPHONE AVAILABILITY. Telephone availability can be performed while on duty in the office or off duty while at home during evenings, weekends, and holidays.

A. Availability During Office Duty Hours. While on accident availability during duty hours, inspectors perform their usual duties until a notification call is received. However, these duties should be ones that keep the inspector on telephone availability duty in the office or in the general vicinity of the office. Calls should be routed directly to the inspector on telephone availability duty, to a personal number or to a dedicated Flight Standards office "hotline" cellular telephone to be used by the inspector on duty. If the inspector on duty is already on an investigation (e.g., at an accident site), the office procedures must compensate for this situation. Some suggestions are assigning an alternate to the on-duty inspector or taking the next available inspector on the telephone availability schedule.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

B. Telephone Availability After Duty Hours. Notification during off-duty hours is normally made by the ROC to the inspector's designated telephone number and provides employees with advance notice of when they could be called for overtime, thus enabling them to plan accordingly. Employees, however, are not required to be available by telephone, have limitations imposed on their personal travel or nonwork activities, or be in a state of readiness to perform work.

8-556 TYPES OF TELEPHONE CALLS. Calls received during telephone availability may involve accidents, incidents, complaints, or possible noncompliance. Each call should be handled in the most expeditious manner possible and in accordance with national and office policies.

8-557 PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of any related regulations, FAA policies, office investigation policies, and qualifications as an ASI.

B. Coordination. This task requires coordination with office administrative personnel, the Front Line Manager (FLM), and the ROC. This task may also require coordination with the FAA Safety Team (FAASTeam) Program Manager (FPM), the appropriate air traffic facility, the appropriate NTSB Aviation Safety Regional Office, or state and local law enforcement officials.

8-558 REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Office accident/telephone availability schedule.
- Any office manual and/or accident manual.
- Title 49 of the Code of Federal Regulations (49 CFR) (NTSB) Parts 830 and 831.
- National and office policy specific to accident/incident investigation.
- FAA Order 1270.1, Freedom of Information Act Program (FOIA).
- FAA Order 2150.3, FAA Compliance and Enforcement Program.
- FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting.
- Volume 7, Chapter 1, Accident and Incident Investigation and Reporting.
- Volume 14, Compliance and Enforcement.
- Volume 16, Chapter 5, Section 3, Compliance and Enforcement.

B. Forms:

- Appropriate forms from related tasks in Volume 7:
  - Chapter 1, Section 1, Accident Investigations;
  - Chapter 1, Section 2, Incident Investigations and Occurrences;
  - Chapter 4, Investigate a Near Midair Collision;
  - Chapter 5, Conduct a Complaint Investigation; and
  - Chapter 6, Conduct an Investigation of FAA Flight Operations.
- FAA Form 1360-33, Record of Visit, Conference, or Telephone Call.
- FAA Form 8020-9, Aircraft Accident/Incident Preliminary Notice.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- FAA Form 8020-23, FAA Accident/Incident Report.
- NTSB Form 6120.1, Pilot/Operator Aircraft Accident/Incident Report.

C. Job Aids. None.

8-559 PROCEDURES.

A. Receive Telephone Availability Schedule. Make note of the week or weeks scheduled to perform telephone availability. Schedule work programs accordingly. If a schedule must be changed, follow office procedures.

B. Open the PTRS Record. When beginning telephone availability duty, open the PTRS record.

C. Receive Telephone Notification Procedures During Duty Hours.

1) Note the date and time of the call using FAA Form 8020-9 or other forms as appropriate.

2) If not previously identified, identify the caller and obtain the caller's telephone number.

3) Determine the nature of the occurrence (i.e., possible noncompliance, complaint, incident, accident, or fatal accident).

4) If the occurrence is a possible noncompliance, see Volume 14, Chapter 1, Section 2.

5) If the occurrence is a complaint, see Volume 7, Chapter 5, Section 1.

6) If the occurrence is an incident, see Volume 7, Chapter 1, Section 2.

7) If the occurrence is an accident with or without fatalities, see Volume 7, Chapter 1, Section 1.

8) If the occurrence is a near midair collision (NMAC), see Volume 7, Chapter 4, Section 1.

9) If the event is related to Unmanned Aircraft System (UAS) activity, see Volume 16.

D. Telephone Notification During Off-Duty Hours.

1) If applicable, before leaving the office, test the phone number to be used to ensure it is operational.

2) If you do not already have an accident manual, follow office policy to obtain a personal copy of the accident manual to keep on hand for reference.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

3) Upon receipt of the telephone notification from the ROC or an outside source, note the date and time of the call using FAA Form 1360-33 or other forms as appropriate.

4) If not previously identified, identify the caller and obtain caller's phone number.

5) Determine the nature of the occurrence (i.e., possible noncompliance, complaint, incident, accident, or fatal accident).

6) If the occurrence is a possible noncompliance, see Volume 14, Chapter 1, Section 2.

7) If the occurrence is a complaint, see Volume 7, Chapter 5, Section 1.

8) If the occurrence is an incident, see Volume 7, Chapter 1, Section 2.

9) If the occurrence is an accident with or without fatalities, see Volume 7, Chapter 1, Section 1.

10) If the occurrence is a NMAC, see Volume 7, Chapter 4, Section 1.

11) If the event is related to UAS activity, see Volume 16.

12) If the notification of the event is from an outside source, notify the ROC in accordance with Flight Standards office protocol and call the number established by office procedures. Proceed with steps 1 through 11 above.

E. Keep Unit Supervisors and the FPM Informed. At the earliest opportunity, brief supervisory personnel and the FPM on occurrences. Update them with new information as it is received.

F. Postduty Briefings. Once telephone availability duty is complete, brief all other office personnel during weekly staff meetings on events that have occurred.

G. Close the PTRS Record. Close the PTRS record, as appropriate.

H. Duty Complete. If applicable, turn the office hotline cellular telephone over to the next person on the telephone availability schedule.

8-560 TASK OUTCOMES. Completion of this task results in:

- A completed complaint record,
- Performing the Compliance Action (CA) Decision Procedure, or
- A preliminary accident/incident report.

8-561 FUTURE ACTIVITIES. Possible future activities include:

- Performing telephone availability at the next rotation.
- Possible complaint investigation.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using

- Possible noncompliance investigation.
- Possible accident/incident investigation.
- Possible NMAC investigation.
- Possible followup investigation if additional complaints are received.

RESERVED. Paragraphs 8-562 through 8-577.

UNCONTROLLED COPY WHEN DOWNLOADED
Check with FSIMS to verify current version before using