

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 29 PROVING AND VALIDATION TESTS

Section 5 Proving and Validation Tests: The Demonstration Phase

3-2376 GENERAL. This section contains information on the demonstration phase of proving and validation tests. In this phase, the Federal Aviation Administration (FAA) will observe and evaluate an applicant during the conduct of proving and validation tests, which include tabletop exercises and proving or validation flights. For the purposes of this section, the term “applicant” applies to an applicant for initial certification, an existing operator applying for additional certification, or an existing operator who requires validation testing for Special Areas of Operation (SAO). Information in this section applies to both proving and validation tests except where otherwise noted. When used in this section, the terms Certification Project Team (CPT), Certification Team Leader (CTL), and certification project manager (CPM) apply to a team of FAA inspectors conducting certification and non-certification activities that require proving or validation testing.

3-2377 ADDITIONAL GUIDANCE RELATED TO EXTENDED OPERATIONS (ETOPS). The principles of this section relate to all proving tests. Additional guidance that is specific to ETOPS proving and validation tests is located in Volume 4, Chapter 6, Section 2.

3-2378 DOCUMENTATION. Document the conduct and outcome of proving and validation testing via the appropriate reporting mechanism (e.g., Air Transportation Oversight System (ATOS), Safety Assurance System (SAS) or Program Tracking and Reporting Subsystem (PTRS)), based on the applicable oversight system.

3-2379 TABLETOP EXERCISES.

A. Purpose. All Title 14 of the Code of Federal Regulations (14 CFR) parts 91 subpart K (part 91K), 121, and 135 applicants must satisfactorily complete tabletop exercises before conducting proving or validation flights. The FAA will conduct tabletop exercises to determine if the applicant’s systems and personnel perform at a level that justifies conducting proving or validation test flights. Tabletop exercises should not simply be a ground-based duplication of the planned proving or validation flight exercise. Additional information on tabletop exercises specific to validation testing is described in Volume 3, Chapter 29, Section 8.

B. Tabletop Protocol.

1) **Part 121.** During tabletop exercises for part 121 operations, the CPM and the CTL are responsible for the quality of the administration of tabletop exercises.

2) **Parts 91K and 135.** During tabletop exercises involving part 91K or 135 operations, the CPM is responsible for the quality and administration of tabletop exercises.

3) **Parts 91K, 121, and 135.** The CPM is responsible for scheduling the tabletop exercise. The applicant is responsible for the attendance of all personnel who will participate in the tabletop scenarios.

4) Part 91. Tabletop exercises are not required for part 91 operators (except program managers conducting part 91K operations). However, these exercises are recommended. Therefore, ASIs should encourage part 91 operators to schedule tabletop exercises, whenever appropriate. The operator is responsible for the attendance of all personnel who will participate in the tabletop exercise.

3-2380 DEVELOPING A TEST PLAN. When developing a test plan for tabletop exercises, proving, or validation test flights, consider the following elements:

A. Scenarios Should Involve Operations, Airworthiness, Cabin Safety, Dispatch, and Ground Station Issues. Scenarios should present issues that apply to the following.

- 1) Aircraft airworthiness and maintenance personnel;
- 2) Flight operations and flight operations personnel, including pilots, dispatchers, and flight attendants (F/A);
- 3) Ground and station operations, including personnel responsible for aircraft and passenger handling, and
- 4) The applicant's manual procedures, approved programs, and operations specifications (OpSpecs) authorizations.

B. Scenarios Should be Assigned to the Appropriate Personnel. The CPM will utilize the CPT members based on their areas of expertise and assign them appropriately during the scenarios.

C. Scenarios Should be Realistic. The use of realistic scenarios will ensure that the applicant is able to respond appropriately by using the policies and procedures outlined in the applicant's manual system.

D. Minimum Number of Scenarios.

1) Part 121 Proving Tests. For proving tests involving part 121 operations, the CPT members will develop a minimum of 20 scenarios. The CPT will base the scenarios on their knowledge of the applicant's systems gained during the manual review. Out of the 20 scenarios, the CPM will select a minimum of 15 scenarios to use in the overall exercise which includes the tabletop exercise and the proving or validation test flights. At least 10 of the scenarios should be conducted during proving flights. The CPT should plan at least five backup scenarios in case additional demonstration by the applicant is required. The CPT will document the results of each scenario on the Proving/Validation Test Scenario Worksheet (Figure 3-111F).

2) Parts 91K and 135 Proving Tests. For proving tests involving part 91K or 135 operations, the number of scenarios is at the discretion of the CPM, but should not be less than five scenarios.

3) All Validation Tests. The number of scenarios for validation testing is at the discretion of the CPT based on the nature and complexity of the validation.

3-2381 PROVING/VALIDATION FLIGHT INSPECTION TEAM. Proving/validation flights (representative en route) should closely simulate the operations the applicant proposes to conduct.

A. Inspection Team Composition. The onboard team of FAA inspectors must include a qualified operations inspector who directly observes the flightcrew and in-flight events and reports those observations. For those operations that include Class II navigation (NAV) or SAO airspace, a regional NextGEN (AXX-220) SAO Specialist (formerly known as a navigation specialist) must be onboard for those legs where Class II NAV or SAO operations are conducted. The certificate-holding district office (CHDO) (including a certificate management office (CMO) or Flight Standards District Office (FSDO)) must contact the Regional NextGen Branch (AXX-220) to locate an SAO specialist. The majority of proving/validation flights should also be observed en route by maintenance and avionics inspectors onboard the aircraft. In addition to the en route activities, operations and airworthiness inspectors must also evaluate flight initiation, servicing and unscheduled maintenance, and flight termination activities. A dispatch-qualified inspector (see subparagraph 3-2381A3) should be positioned in the dispatch center, flight-following facility, or Operations Control Center (OCC) (as applicable) for part 121 operations. During the conduct of representative flights, other inspectors should observe the applicant's activities at appropriate ground facilities, such as Maintenance Control Centers (MCC), load control centers, and station facilities.

NOTE: If traveling outside the U.S., the CPM is responsible for ensuring that all FAA personnel involved have the required authorizations (e.g., passport, country visa).

1) Qualified Operations Inspector.

a) Proving Flights. A qualified Operations (Ops) inspector is an inspector who, in order of preference, is:

- Aircraft type-rated and current,
- Aircraft type-rated and not current, or
- An Aviation Safety Inspector—Operations (ASI-OP), type-rated in an aircraft within the same group (Group I or II) being used in the proving or validation flight and in possession of a “Best Qualified” letter of authorization (LOA) (see subparagraph 3-2381A2).

b) Validation Flights. A qualified operations inspector is an inspector who, in order of preference, is:

- Aircraft type-rated and current,
- Aircraft type-rated and not current,
- Aircraft group qualified, or
- An ASI in possession of a “Best Qualified” LOA, (refer to subparagraph 3-2381A2).

NOTE: For validation testing (with the exception of FAA SAO specialists conducting an international validation test), the qualified operations inspector must be familiar with the testing being conducted. For ETOPS validation flights, the qualified operations inspector should be type-rated (not necessarily current) in the specific aircraft, or type-rated in another multi-engine ETOPS-approved aircraft; and be thoroughly familiar with the ETOPS requirements. See Volume 4, Chapter 6, Section 2 for more details regarding ETOPS validation flights.

2) Locating a Qualified Ops Inspector if None Are Available at a CHDO. If a qualified Ops inspector is not available within the CHDO, the office manager will request assistance in locating a qualified Ops inspector from the regional Flight Standards division (RFSD). The RFSD will make every attempt to locate a qualified operations inspector within its region, and, if necessary, look outside its region. The Flight Activity and Crew Tracking System (FACTS) database can be a useful tool in locating such inspectors. The RFSD may also request the assistance of the Flight Standards Inspector Resource Program (FSIRP) office in obtaining a qualified operations inspector. If the FSIRP office determines that the FAA does not have any qualified operations inspectors who are type-rated and current; or type-rated and non-current, then the FSIRP may issue a “Best Qualified” LOA for an operations inspector current on a similar type aircraft within the same group, and valid for a period of time sufficient to complete the applicant’s proving or validation test.

NOTE: All LOAs must be initiated by the RFSD, be approved by the FSIRP office, and be electronically forwarded to the inspector through the Air Transportation Division (AFS-200) for parts 121 and 135, or the General Aviation and Commercial Division (AFS-800) for part 91K. This can be accomplished by electronically carbon-copying the applicable division when sending the LOA to the inspector.

3) Dispatch Qualified Inspector for Part 121 Operations.

a) Proving/Validation Flights. A dispatch-qualified inspector is an inspector who, in order of preference is:

- An Aviation Safety Inspector—Aircraft Dispatcher (ASI-AD) assigned to the CHDO with oversight responsibility of the applicant, and who is familiar with the applicant’s aircraft dispatcher training program and dispatch procedures.
- An ASI-AD located in the region in which the applicant’s dispatch, flight-following, or operational control center is located.
- An ASI-AD from the Flight Standards National Field Office (AFS-900)
- An ASI-AD from AFS-200.
- An Aviation Safety Inspector—Air Carrier Operations (ASI-AC-OP) who holds an FAA Aircraft Dispatcher Certificate, has attended FAA Academy (AMA) Course 21047, Aircraft Dispatcher Functions for ASIs, has oversight responsibility of the operator conducting the proving or testing flights, and is familiar with the applicant’s operations manuals, including

the manual containing the aircraft dispatcher training program and aircraft dispatcher procedures.

NOTE: The CHDO must follow the order of preference. If an individual named in the first bullet is not available, then go to the second bullet. If the individual named in the second bullet is not available, then go to the third bullet, etc.

b) Proving Flights for Initial Air Carrier Certification. An ASI-AD from AFS-900 should be part of the CPT for proving flights involving initial air carrier certification. CPT participation by an AFS-900 ASI-AD should be in addition to participation by an ASI-AD assigned to the CHDO or the RFSD, whenever possible.

4) Focal Points for En Route Scenarios. For all en route scenarios conducted during proving/validation flights, a qualified operations inspector must be onboard the aircraft and must be the focal point for scenarios involving the aircraft and flightcrew. For passenger-carrying operations, a cabin safety inspector (CSI) must be the focal point for all in-flight scenarios involving F/As and situations in the aircraft cabin. For flights that do not involve en route scenarios (see paragraph 3-2385), a qualified operations inspector does not need to be onboard the aircraft, provided the flightcrew is type-rated, current, and has completed all training requirements, as applicable for the type of operation.

5) Operations with a Single Flight Deck Observer's Seat. For unique situations in which an applicant must conduct proving or validation flights in an aircraft with only one flight deck observer seat and no passenger seats (e.g., cargo-configured aircraft), a qualified operations inspector must conduct all in-flight scenarios. The principal operations inspector (POI) should thoroughly review the applicant's proving or validation test plan to ensure that all FAA disciplines have the opportunity to conduct sufficient testing. Other forms of testing can be accomplished by tabletop demonstrations and pre- or post-flight scenarios. Any other unique proving or validation flight situations may require a waiver. Requests for waivers to proving or validation tests requirements must be accomplished in accordance with the requirements of Volume 3, Chapter 29, Section 7.

6) Familiarity with Applicant's Manuals. All FAA participants conducting the proving or validation test must review the applicant's manuals as appropriate, along with the proving/validation test plan in order to familiarize themselves with the applicant's procedure and the proving/validation test scenarios. It is desirable to have the POI included as part of the in-flight proving/validation test team, but on space-limited flights where the POI is not the qualified operations inspector, the qualified operations inspector should have seating priority in order to facilitate the in-flight scenarios.

7) Airworthiness Inspectors (Maintenance and Avionics) Should Observe Operations From the Flight Deck, When Possible. In addition to having qualified Ops inspectors initiate and observe the en route scenarios from the flight deck, Airworthiness ASIs (Avionics and Maintenance) assigned to the CPT should have an opportunity to observe normal flight deck operations from the flight deck observer's seat when possible. This should not require additional proving/validation flight segments. Airworthiness ASIs could conduct flight deck observations during flights where no scenarios are being conducted or where scenarios do not

require a qualified Ops inspector to observe from the flight deck. When an avionics or maintenance inspector is occupying a flight deck observer's seat, the CPT may not conduct en route scenarios that involve the flightcrew or flight deck.

3-2382 PROVING/VALIDATION FLIGHT PROTOCOL.

A. FAA Protocol. During the conduct of proving/validation flights, FAA personnel are considered passengers, unless they present an FAA Form 110A, Aviation Safety Inspector's Credential, and provide instructions related to the proving/validation test.

B. Inspectors Occupying the Flight Deck Observer's Seat. An ASI who occupies the flight deck observer's seat is always in inspector status and is not considered a passenger. During the conduct of the proving/validation tests, the ASI on the flight deck should observe the applicant's normal and routine preflight activities such as completion of checklists, crew briefings, and crew interaction with the applicant's maintenance, dispatch or other operational control personnel. The ASI on the flight deck should also monitor carry-on baggage procedures, and cabin preflight activity whenever possible, provided it does not interfere with monitoring the activity on the flight deck.

C. CPM and CTL Coordination. The CPM or CTL will carry the flight schedule, crewmember names and scenario worksheets, and will coordinate with the inspectors onboard. If the CPM and CTL are not onboard on a particular day, the CPM must designate another inspector to serve as the FAA team lead.

D. Multiple Scenarios are Allowed. The CPT may conduct more than one scenario for each flight leg of proving/validation tests. The CPT may conduct multiple scenarios simultaneously, provided each simultaneous scenario is isolated to a specific duty position (e.g., pilot, F/A, dispatcher, mechanic, etc.). The CPM must ensure that the applicant is not over-encumbered by multiple scenarios.

E. Hands Off.

1) ASIs may not touch or operate any emergency equipment. The only exception is the testing and cleaning of the oxygen masks located on the flight deck.

2) ASIs may not position engine controls or switches.

F. Simulated Emergencies May Not Involve the Actual Positioning of Engine Controls or Switches or the Deactivation of Instruments or Equipment. When initiating scenarios that include a simulated emergency (engine shutdown, rapid decompression, etc.), ASIs may not require or ask the applicant to actually manipulate or position engine controls or switches for the purposes of demonstrating the applicant's ability to handle an emergency. For example, when simulating an engine shutdown, do not require the flightcrew to position engine throttles to simulate loss of engine power. Instead, advise the flightcrew to begin reacting as if they were initiating an engine shutdown, or as if the engine had shut down on its own, depending on the scenario. Simulated emergencies may never involve the actual deactivation of aircraft instruments or equipment.

G. Communication with Air Traffic Control (ATC). When initiating scenarios that involve the actual diversion of a flight, the ASI initiating the scenario must clearly instruct the flightcrew to inform ATC that the flight is diverting due to the needs of the company. This requirement is necessary to ensure that the workload of the affected ATC facilities is not negatively impacted by the perception of an actual emergency situation. For diversions conducted in oceanic or international airspace, it may be necessary for the CPT to coordinate the diversion with the ATC facility ahead of time. This coordination should include providing ATC with an explanation that the diversion is due to an FAA simulation and that it does not involve an actual emergency. The CPM and the CPT will evaluate the need to pre-coordinate with ATC on a case-by-case basis. It is important to note that if the diversion is planned to occur in oceanic airspace, the flightcrew must obtain an ATC clearance prior to exiting the track and performing the contingency procedure. ASIs must be aware that communication between the flightcrew and ATC in oceanic airspace is accomplished indirectly through a radio service operator. Therefore, it may take time to obtain the ATC clearance necessary to conduct the scenario. The CPM will ensure that either the inspector occupying the flight deck observer's seat or observing at applicant's dispatch or operational control facilities will coordinate as needed with ATC.

H. Initiating the Scenario. The CPT should communicate with each other discretely prior to initiating scenarios, and during conduct. The CPT may initiate a scenario using any of the following methods.

- 1) An ASI may initiate a scenario by giving verbal instructions
- 2) An ASI may initiate a scenario by handing a note to a crewmember explaining the emergency scenario.
- 3) For scenarios in the aircraft cabin, an ASI may initiate a scenario by simple role-playing such as appearing to be intoxicated.

I. Pre-Plan the End of the Scenario. If possible, the CPT should plan ahead of time how and when to end the scenario. The CPT should delegate one inspector to end each scenario.

J. Terminate All Scenarios in the Event of an Actual Emergency. In the event of an actual emergency, the CPT and/or ASI conducting the scenario will immediately terminate the scenario.

K. Use of Actual Aircraft Logbook is Permitted. It is permissible to use the actual aircraft logbook to record scenarios. Record the items entered in the logbook as an FAA scenario to differentiate between scenarios and real logbook entries. The applicant may also choose to use a separate logbook for scenarios. When using a separate logbook, the applicant must ensure that aircraft flight hours and genuine malfunctions are recorded in the actual aircraft logbook.

L. Successful Completion Required. The applicant must successfully complete all scenarios presented by the test team in order for the application process to continue.

M. Unsatisfactory Performance. If the applicant's performance during any scenario is unsatisfactory, the CPT will present another scenario that requires the applicant to demonstrate similar abilities. Under the SAS oversight system, conduct another scenario from the same SAS

element. If the applicant's performance continues to be unsatisfactory, the CPT will confer and decide whether or not the proving/validation test needs to be suspended and rescheduled. If the applicant fails three or more scenarios, the CPT should suspend the proving/validation tests until such time as the applicant is better prepared to demonstrate its performance.

N. Document the Results of Each Scenario. Document the results of each scenario using the Proving/Validation Test Scenario Worksheet (see Figure 3-111F).

O. Completed Worksheet. The CPT will give the completed Proving/Validation Test Scenario Worksheet to the CPM for the Certification Report.

3-2383 PRE-MEETING WITH THE APPLICANT. The CPM should discuss the following items with the applicant:

A. Proving/Validation Tests Schedule. The CPM should discuss the proving/validation flight schedule with the applicant. This includes the schedules for tabletop exercises and proving/validation flights. The CPM/CPT should use discretion when determining proving/validation test schedules and should plan tests within an 8-hour workday, including briefings, whenever possible.

B. Briefing and Debriefing. Describe the preflight and post-flight briefing processes to the applicant. In particular, explain that there will be a debriefing at the conclusion of each day unless major problems require it sooner. Advise the applicant that it must resolve all major discrepancies before the proving/validation test resumes the following day.

C. The Purpose of the Proving/Validation Tests. Explain the purpose of the proving/validation tests to the applicant. This should include explaining the regulatory requirements for proving tests and FAA policy related to proving and validation tests.

D. How the FAA Will Measure the Results of Each Scenario. Explain to the applicant that the FAA will measure the results of each scenario as either satisfactory or unsatisfactory. Explain that additional demonstration by the applicant may be required when scenario results are unsatisfactory.

E. Explain FAA Proving and Validation Test Protocols. Explain to the applicant, the FAA's protocols for proving/validation tests, including those applicable to tabletop exercises and proving/validation flights. Emphasize the protocols related to simulated emergencies and ATC communication and coordination. Make it clear to the applicant that when communicating with ATC, it must be made clear to ATC that the diversion is for company reasons and is not due to an irregular or emergency situation.

F. FAA Initiation of Scenarios. Explain how CPT will initiate scenarios (e.g., verbally, via note, or via role-play in the aircraft cabin).

G. Applicant Protocols. Inform the applicant of the following expectations regarding the applicant's protocols.

1) The applicant should treat FAA personnel as passengers, unless the FAA inspector onboard the aircraft presents his or her FAA credential, FAA Form 110A, and provides proving/validation test instructions. An FAA inspector occupying the flight deck observer's seat is always in inspector status.

2) During the conduct of the proving/validation tests, the applicant's personnel should follow the appropriate company policies and procedures.

3) Unless advised otherwise by the FAA, the applicant's personnel involved in a scenario should use normal communication and coordination between the cabin, flight deck, dispatch, maintenance control, etc.

4) Applicant personnel, who have been called upon to perform functions during a scenario, should not inform other personnel that there is a scenario in progress.

5) Applicant personnel may not enlist the services of any person not assigned to be on official duty during the conduct of a scenario.

6) The applicant will provide the CPT with a list of its personnel participating in the proving/validation tests.

H. Credit Towards the Minimum Required Number of Flight Hours. Explain the FAA's criteria and process for crediting flight hours depending on the successful completion of proving/validation test flight segments.

I. The FAA Will Discontinue Scenarios in the Event of an Actual Emergency. Explain to the applicant that the FAA will discontinue all scenarios in the event of an actual emergency and that the applicant will follow its emergency procedures and checklists as appropriate.

J. Use of the Actual Aircraft Logbook. The CPM should encourage the applicant to use the actual aircraft logbook during proving/validation tests. This allows the applicant to accurately log the aircraft flight time and any actual maintenance discrepancies that could occur. Advise the applicant that simulated maintenance discrepancies must be entered into the logbook in a manner that identifies them as simulated and differentiates them from real discrepancies entered into the logbook. Advise the applicant that it may choose to use a separate log for scenarios, but must ensure that the actual company logbook has a record of actual flight hours and malfunctions.

K. Delay, Suspension, or Termination of Proving/Validation Tests. Provide the applicant with the circumstances under which the CPT will delay, suspend, or terminate the proving/validation test.

L. Location of FAA Inspectors. Advise the applicant where the various CPT members will be located during the proving/validation tests (e.g., aircraft, dispatch center, maintenance control, or station facilities).

3-2384 DETERMINING APPLICANT COMPETENCY.

A. Test the Effectiveness of the Applicant. The CPT will evaluate the applicant's competency throughout the proving/validation test process. Through the conduct of the test scenarios, the CPT must evaluate the following:

1) The Effectiveness of the Applicant's:

- Policies and procedures,
- Airport and station facilities, and
- Training programs.

2) The Effectiveness of the Following Applicant Personnel:

- Flightcrew,
- Cabin crew,
- Aircraft dispatchers,
- Other operational control personnel,
- Maintenance personnel, and
- Station personnel.

3) Flightcrew. The test team evaluates the competency and ability of the flightcrew throughout the en route segment. Examples of areas to inspect and evaluate are:

- Flightcrew qualification,
- Aircraft performance (including flight characteristics),
- Aircraft Flight Manual (AFM) limitations,
- Aircraft normal, abnormal, and emergency procedures,
- Aircraft systems and equipment,
- Airport data (including knowledge of required runway lengths, field elevation, facilities, and gates or parking areas),
- Flight management and cruise control,
- Company manuals and procedures,
- Crew discipline, situational awareness, and crew management,
- Crew vigilance and collision avoidance procedures,
- Knowledge of en route structure, long-range navigation procedures (if applicable), and unique en route and Area of Operation requirements,
- Knowledge of MEL and Configuration Deviation List (CDL) procedures,
- Knowledge of, and competency in, departure and arrival procedures,
- Air/ground communications with the company and also with ATC,
- Check airman/check pilot performance and effectiveness,
- Adequacy of airman training program as demonstrated by the flightcrew,
- Cabin crew and passenger briefings,
- Knowledge of security requirements and procedures,
- Crew Resource Management (CRM), and
- Communication and coordination with station personnel.

4) Cabin Crew. The test team evaluates the cabin crew's competency and ability during the en route segment. Examples of areas to inspect and evaluate are:

- Competency in all normal procedures associated with their assigned positions,
- Knowledge of emergency procedures (including evacuation, fire-fighting, pressurization problems, passenger illness or injury, baggage in the cabin, and exit seating),
- Knowledge of applicable manual procedures pertaining to duties and responsibilities,
- Knowledge of procedures to follow when a crewmember is incapacitated,
- Knowledge of verbal and nonverbal communication procedures between the cabin and flight deck (such as the number of chimes indicating imminent takeoff or landing),
- Training program effectiveness, and
- Flight deck coordination (including crew and passenger briefings, communication and coordination with station personnel, CRM, and knowledge of security requirements and procedures).

5) Airport/Station Facilities. The test team determines whether the airports and the applicant's station facilities are adequate to support the specific aircraft and type of operation proposed by evaluating, at a minimum:

- Runways and taxiways,
- Runway and taxiway lighting,
- Approach lighting,
- Navigational Aids (NAVAID),
- Gate, ramp, and loading area conditions (such as markings, congestion, and lighting),
- Station operations manuals, maintenance manuals, and facilities,
- Ground crew qualifications and training (if applicable),
- Passenger enplaning and deplaning procedures,
- Baggage and cargo-loading,
- Aircraft fueling and servicing, and
- Gate arrival and departure procedures and equipment.

6) Dispatch and Other Operational Control Personnel. The CPT will evaluate dispatch and operational control personnel at the dispatch center, flight-following facility, or operational control center. The team will evaluate the following:

- Flight planning,
- Dispatch, flight release, and flight locating procedures,
- Airport and route information collection and dissemination,
- Driftdown and diversionary procedures,
- Weather information collection and dissemination,
- Dispatch and flight control personnel competency,

- Communications capability within the company, with the aircraft, and with other agencies,
- Load control (e.g., the accuracy of the passenger count and the ability to convey Weight and Balance (W&B) changes to and from the aircraft before takeoff),
- Scheduling,
- Flightcrew duty and rest time,
- Manuals,
- High minimums captains,
- Maintenance control (procedures and records),
- Flightcrew briefings,
- Air Transportation Supervisor (ATS) (part 121 domestic/flag only) competency check for initial check dispatcher (as applicable), and
- Initial check dispatcher (part 121 domestic/flag only) competency check on initial cadre dispatchers (as applicable).

NOTE: The utilization of a dispatch-qualified inspector ASI-AD is required for part 121 operations.

7) Company Procedures, Programs, and Interfaces. Examples of company procedures, programs, and interfaces to inspect and evaluate are:

- Aircraft operations operational control,
- Ground operations and maintenance personnel,
- Fueling facilities and equipment,
- Security (public protection and restricted articles),
- Adequacy of training programs,
- MEL and CDL procedures,
- Procedures for accomplishing unscheduled and scheduled maintenance,
- Hazardous materials (hazmat),
- Ability to conduct operations at unscheduled stops or alternate airports,
- Adverse weather requiring coordination between dispatcher/flight follower, pilot, and F/As,
- Aircraft Accessibility Act compliance,
- Carry-on baggage, and
- Exit row seating.

3-2385 CONDUCT OF OTHER FLIGHTS. Other flights, such as training, positioning, or ferry flights, may be counted toward proving/validation flight hours. FAA observation of these flights allows inspection of the applicant's training, maintenance, and other programs.

NOTE: All training flights that are to be credited toward the proving/validation test requirements must be observed by a qualified operations inspector.

A. Pilot Training. Flights during which the applicant trains its initial cadre check airmen, instructors, and line crewmembers, may be counted as proving/validation test hours only

when the CPT is able to complete all of the en route scenarios during the overall course of the proving/validation testing, without including the training flights. ASIs will act only as observers during flights that include pilot training. It is not appropriate to conduct scenarios, which could disrupt the training or delay the flight.

B. F/A Training. F/A training may be conducted onboard proving/validation flights under the following conditions:

- 1) When proving/validation flight scenarios do not involve the cabin or F/As, or
- 2) When activity on the flight deck (training or scenarios) does not require involvement or coordination with the cabin crew.

C. Aircraft Dispatcher/Flight Follower/Director of Operations (DO) Designated Personnel Training. The applicant may conduct training of aircraft dispatchers, flight followers or other operational control personnel designated by the DO, while the applicant is conducting proving, validation, training, positioning, or ferry flights. The operator may conduct this training in the dispatch center, flight-following facility or other operational control center, during the conduct of the flights.

3-2386 COMPLETION OF THE PROVING/VALIDATION TESTS. The CPT may conclude the proving/validation tests in one of the following ways:

A. Completion as Planned. The applicant completes all proving/validation tabletop exercises and flights according to schedule without significant change.

B. Early Completion. In some cases, the CPT may be able to allow proving or validation tests to conclude sooner than planned when all test objectives have been met, and the applicant has demonstrated a repeated ability to conduct line operations in compliance with regulations and safe operating practices. The CPT may only allow early completion of proving/validation tests in accordance with the requirements of subparagraphs 3-2386B1) through B3).

1) Proving Tests.

a) Sections 91.1041, 121.163, and 135.145 all allow the Administrator to reduce the number proving test hours. Early completion of proving tests is only allowable within the provisions of these regulations, and the Flight Hour Reduction Guide contained in Volume 3, Chapter 29, Section 7.

b) Before authorizing an early completion of the proving test, the team lead must review Volume 3, Chapter 29, Section 7, Table 3-108, Flight Hour Reduction Guide, and take into account any flight hour reductions granted as part of the initial proving test plan. The team lead must then consider the total number of hours reduced and determine whether or not a deviation to proving test requirements will be required. The team lead must also follow the coordination requirements contained in Volume 3, Chapter 29, Section 7, Table 3-109, Coordination Requirement and Approval Authority for Proving Flight Deviations.

2) Validation Tests. There are no regulatory requirements for a minimum number of hours of validation testing. The number of required hours is at the discretion of the CPT. The CPT may reduce validation test hours if they determine it is appropriate.

3) Document Decision. The team must document the decision to conclude proving/validation testing earlier than planned via the appropriate reporting mechanism (e.g., ATOS, SAS or PTRS), based on the applicable oversight system.

C. Test Extension. The CPT may extend the tests beyond the point of scheduled termination. This CPT will take this action when the applicant has not completely demonstrated the ability to conduct operations in compliance with regulations and safe operating practices, but shows the potential to do so in a reasonable number of hours.

D. Unsuccessful Performance May Not be Counted. Proving/validation test segments that are not completed successfully may not be counted toward the required total proving test hours.

E. Unacceptable Performance. The CPT may terminate testing when it is apparent that the applicant is not capable of correcting deficiencies. When the CPT decides to terminate proving/validation tests due to extensive deficiencies, the CPT will accomplish the following:

1) The CPM will immediately inform the RFSD of the CPT's reasons for terminating the testing. The CPM must obtain concurrence from the RFSD before concluding testing.

2) The CPM may inform the applicant informally of the FAA's decision to conclude the proving/validation testing. The CTL will notify the applicant in writing of the decision to conclude proving/validation testing. The letter to the applicant must include the reasons why the FAA is concluding the testing, and list deficient areas, along with corrective actions that must be taken before further proving/validation testing may continue. The letter should also specify that the applicant must develop a new proving/validation test plan and submit it to the FAA before the FAA will resume further testing. See Figure 3-112, Example of Letter to Applicant Terminating Proving/Validation Test, for an example letter.

Figure 3-111F. Proving/Validation Test Scenario Worksheet

Proving/Validation Test Scenario Worksheet			
Applicant:		Date:	
Flight Number:		Block Time (UTC):	
Arrival:		Block In:	
Departure:		Block Out:	
PIC:		Block Time:	
A/C Type:	No:	Total Time:	
Scenario Number:		Scenario:	
Assignments:			
Initiation:			
Objective:			
Completion Standards:			
Termination:			
Comments:			
SAT	UNSAT	Name:	Signature:

Figure 3-112. Example of Letter to Applicant Terminating Proving/Validation Test

FAA Letterhead

CERTIFIED MAIL

[Date]

[Name of Applicant's Representative]

[Name of Applicant, e.g., ABC airlines]

[Applicant's Address]

Dear [Applicant's Representative]:

This letter is to inform you that effective March 12, 2014, ABC Airlines' [Insert "proving" or "validation"] test demonstration flights with the B737 aircraft are hereby terminated by the Federal Aviation Administration (FAA) due to deficiencies that prevent ABC Airlines from achieving the standards as specified in Title 14 of the Code of Federal Regulations (14 CFR) part [insert part and section reference, e.g., 121, § 121.163(a)].

Specifically, ABC failed to demonstrate compliance in the following three areas:

1. Failure to Operate in Accordance with Authorized Weather Minimums. On March 10, 2014, ABC Flight 123 continued to its destination while the weather forecast indicated that the weather at the alternate airport would be below ABC's alternate minimums at the time aircraft would arrive at the alternate airport (§ 121.631(b)).

2. Failure to Operate With the Required Number of Crewmembers. On March 11, 2014, ABC attempted to operate ABC Flight 345 without the required complement of flight attendants (F/A) (§ 121.391(a)(3)).

3. Failure to Perform Required Maintenance. On March 12, 2014, ABC was unable to perform basic required maintenance and servicing of ABC Flight 456 due to difficulties with its contracted maintenance agency (§ 121.363(b)).

The FAA has determined that, in view of the above discrepancies, the continuation of [insert "proving" or "validation"] tests is unwarranted and would serve no useful purpose. Before ABC may commence any additional [insert "proving" or "validation"] tests for FAA consideration and evaluation, ABC must accomplish the following:

1. ABC Airlines must make the appropriate corrections to ensure the deficiencies cited above will not occur again. Any corrections must be satisfactory to the FAA.

2. ABC Airlines must submit a new [insert "proving" or "validation"] test plan and proposed schedule.

Sincerely,

[Certification Team Leader (CTL) signature]

RESERVED. Paragraphs 3-2387 through 3-2395.