VOLUME 3 GENERAL TECHNICAL ADMINISTRATION
CHAPTER 29 PROVING AND VALIDATION TESTS

Section 8 Validation Test Requirements

3-2436 GENERAL. This section contains guidance for managers and inspectors to use when conducting validation tests. This guidance supplements the general guidance of Volume 3, Chapter 29, Sections 1 through 7.

A. Regulatory Background. Various regulations, such as Title 14 of the Code of Federal Regulations (14 CFR) part 91, § 91.1041; part 121, §§ 121.93 and 121.113; and part 135, §§ 135.73 and 135.145, require applicants to show the capability to conduct specific line operations safely and in compliance with regulatory requirements. Validation testing is one process by which an applicant demonstrates this capability to the Federal Aviation Administration (FAA).

1) Validation Flights. The most common method the FAA uses to validate an applicant’s capability is to observe the applicant conduct flight operations. For example, the FAA requires validation flights before granting initial or additional Extended Operations (ETOPS) authority; before initially issuing Operations Specification (OpSpec)/Management Specification (MSpec) Paragraph B036, Multiple Long Range Navigation System (M-LRNS), or B054, Single Long Range Navigation System (S-LRNS), for the initial Class II navigation authorization. A validation flight must be conducted in accordance with the Proving/Validation Flight Protocols set forth in Volume 3, Chapter 29, Section 5.

2) Validation Testing Without a Validation Flight. A validation flight may be required when adding a new aircraft/navigation system combination to OpSpec/MSpec B036 of an applicant’s authorizations. For example, conversion from an inertial navigation system (INS) to a Global Positioning System (GPS) (or vice versa) as a primary means of navigation may not require a validation flight.

NOTE: Field offices must consult the regional Next Generation Air Transportation System (NextGen) (AXX-220) Special Areas of Operation (SAO) specialist (formerly known as a navigation specialist) before an inspector may approve validation by means other than a flight. Tables 3-110 through 3-115 provide guidance on when a flight is required during validation testing.

3) Areas of Emphasis. When the FAA conducts validation testing, with or without an actual flight, the test team must still conduct an in-depth review of the applicable portions of the applicant’s proposed procedures. Examples include, but are not limited to, the following:

• Operational control,
• Flight planning,
• Safe operating practices,
• Aircraft equipment requirements,
• Abnormal procedures,
• Critical performance requirements,
• Training programs,
• Manuals including minimum equipment list (MEL),
• Facilities, and
• Maintenance programs.

B. Combined Proving and Validation Flights. An applicant conducts proving flights to demonstrate its capability to operate a specific type of aircraft. An applicant conducts validation tests to demonstrate its capability to operate over specific routes while using applicable navigational equipment or to operate within the specified limitations in critical areas. Though proving and validation tests satisfy different regulatory requirements, it is acceptable for applicants to conduct both tests simultaneously.

3-2437 SITUATIONS REQUIRING VALIDATION TESTS OR FLIGHTS. This paragraph contains guidance for inspectors and certification project managers (CPM) concerning those situations where validation flights or tests are required for compliance with § 91.1041, 14 CFR part 119, § 119.59, and §§ 121.93, 121.113, 135.73, and 135.145.

A. Operations Outside U.S. Airspace. When an applicant plans to operate to a destination outside of U.S. airspace, the test team must verify that the applicant has the required economic authority, knowledge of applicable International Civil Aviation Organization (ICAO) standards and state operating rules, and has completed adequate planning for the proposed operation. Normally, validation for this purpose alone does not require a flight.

NOTE: See Volume 3, Chapter 29, Section 3, Proving Test Requirements, paragraph 3-2338 for a further explanation of economic authority.

B. Class II Navigation Authorizations. Situations requiring validation testing, including tabletops and validation flights, in association with the approval of Class II navigation (see paragraph 3-2438) are:

• Initial approval for Class II navigation authorization (single or multiple long-range navigation system (LRNS)), in oceanic areas such as non-North Atlantic High Level Airspace (NAT HLA) in the Atlantic or Pacific;
• Initial approval for NAT HLA; and
• Initial approval for areas of magnetic unreliability (AMU), Extended Operations (ETOPS) and North Polar Operations.

NOTE: The principal operations inspector (POI) must consult a regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist) in regard to:

• The number of validation test flight(s);
• Required Communication, Navigation, and Surveillance (CNS) equipment;
• Specific training for crewmembers, dispatchers, flight-followers, and flight locators; and
• Inclusion of appropriate procedures in the operator’s manuals.
C. Special Performance Authorizations. The FAA requires validation tests when an applicant proposes to conduct operations that require confirmation of the applicant’s ability to operate an aircraft type within specified performance limitations. The FAA bases these limitations on the following situations:

- Terminal area and en route operations in areas of mountainous terrain requiring high elevation airport operations, driftdown, or other specialized contingency procedures;
- Part 121 operations in the North Atlantic Operations (NAT/OPS) area when all points on routes are within 60 minutes of an adequate airport (OpSpec B041);
- Part 121 ETOPS over routes containing a point farther than 60 minutes’ flying time from an adequate airport (deviation from § 121.161) (OpSpec B342);
- Part 135 ETOPS over routes containing a point farther than 180 minutes’ flying time from an adequate airport (OpSpec B342);
- Powerback operations (reverse thrust taxi) (OpSpec C065);
- Unimproved runway operations (OpSpec C050, C067); or
- Helicopter or seaplane operations in highly congested urban areas (refer to OpSpec H114 for helicopter operations).

NOTE: See Volume 4, Chapter 6, Section 2, Process a Certificate Holder’s Application for Part 121/135 Extended Operations Authorization, for guidance regarding ETOPS validation flights.

D. Special Operational Authorizations. The FAA requires the following validation tests when an applicant proposes to conduct in-flight or ground maneuvers that require special operational authorizations (see paragraph 3-2440):

- Category II (CAT II) Approach and landing systems (OpSpec/MSpec C059);
- Category III (CAT III) Approach and landing systems (OpSpec/MSpec C060);
- Use of automatic landing systems for landing operations (OpSpec/MSpec C061);
- Use of manually flown flight control guidance systems approved for landing operations (heads-up or heads-down flight control systems) (OpSpec/MSpec C062);
- Use of Airborne Radar Approach (ARA) systems (OpSpec H102);
- Use of Area Navigation (RNAV) systems for RNAV routes, instrument departure procedures, and standard terminal arrivals (refer to the current edition of Advisory Circular (AC) 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations) (OpSpec/MSpec C063); or

NOTE: CPMs involved in validations covered in subparagraphs 3-2437C and D should consult with the Air Transportation Division (AFS-200).
**3-2438 CLASS II NAVIGATION AUTHORIZATIONS.** Upon initial certification, applicants receive OpSpec/MSpec paragraphs that authorize Class I navigation. Before adding a geographic area to OpSpec/MSpec paragraph B050 in which Class II navigation is required, test teams must validate the applicant’s capability to conduct these operations safely (see Volume 4, Chapter 1, Section 4, Class II Navigation, for a definition of Class II navigation).

A. **Initial Approval.** When an applicant has no prior authorization to conduct Class II navigation, a validation flight is required before the team may issue OpSpec/MSpec B036, B054, or add appropriate geographic areas to OpSpec/MSpec B050. These areas include:

- Remote and extensive land areas not served by reliable ICAO surface-based Navigational Aids (NAVAID), and
- Extensive overwater areas beyond the service volume of surface-based navigation facilities.

B. **Authorization for LRNS.** A validation flight may be required when an applicant is adding a new LRNS/aircraft combination to OpSpec/MSpec B036 or B054.

1) LRNS include:

- INS platforms;
- Flight management computers (FMC);
- Global Navigation Satellite System (GNSS), when approved;
- Any combination of the preceding systems; or
- Special navigation procedures and/or techniques.

**NOTE:** For further guidance on any navigation system not listed here, contact your regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist).

2) A satisfactory validation test allows for the addition of a new aircraft/navigation system combination to OpSpec/MSpec B036 or B054. Test teams may validate the new combination using tabletops, provided the applicant can demonstrate that the new combination of an aircraft/navigation system and its operation require no significantly different procedures, (i.e., from those procedures that the applicant is currently authorized, or where the applicant can show satisfactory current experience).

3) Test teams can determine the current level of flightcrew training and qualification by conducting oral tests of knowledge and procedures, and by evaluating training records (see paragraph 3-2442). The following examples are situations where inspectors may authorize validation testing in lieu of validation flights:

**NOTE:** Before authorizing validation testing in lieu of a validation flight for SAO, the test team must consult a regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist).
• An applicant with a satisfactory history of conducting Class II navigation by using a CL 601/Delco Carousel IV INS combination proposes to add the Delco IV INS to a previously authorized G-III that the applicant operates in Class I airspace.

• An applicant for an additional Class II route authorization under part 135 can show a previous history of successful operation of that aircraft and equipment combination in extended Class II operations. Part 91 experience does not constitute authority for part 135 navigation authorizations.

C. Additional Geographic Areas. The FAA will normally authorize operation in additional geographic areas (other than SAOs) to an applicant who requests such authorization without a validation flight. The test team must verify that the applicant has the required economic authority, knowledge of applicable ICAO standards and state operating rules, and has completed adequate planning for the proposed operation.

D. SAO. For purposes of validation, the FAA designates certain areas as special operating airspace. (See Table 3-110, Special Authorization Table—Special Areas of Operation.)

NOTE: SAO validations are normally conducted on round-trip flights or as recommended by the regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist).

1) AMUs (OpSpec/MSpec B040). Applicants must conduct validation flights through these areas (due to the nature of the procedures involved) as a condition of initial issuance of OpSpec/MSpec B040. Test teams may approve validation by means of testing in lieu of flights when an applicant that already holds OpSpec/MSpec B040 proposes to operate new combinations of aircraft and navigation systems in these areas.

NOTE: Due to the geographic overlap of the AMU and the Canadian Minimum Navigation Performance Specification (C-MNPS) airspace, inspectors must contact an FAA regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist) regarding geographic and operational limitations in these areas.

2) NAT HLA and C-MNPS Airspace (OpSpec/MSpec B039). Due to the navigational tolerances and the procedures required, applicants must conduct validation flights through these areas round-trip before receiving initial authorization to conduct revenue operations in these areas.

3) Central East Pacific (CEP) Composite Airspace (OpSpec/MSpec B037) and North Pacific (NOPAC) Airspace (OpSpec/MSpec B038). During validation for approval of CEP, and NOPAC areas, test teams should focus on flight planning, contingencies, and CNS requirements. No requirement exists for an applicant already holding OpSpec/MSpec B036 who has a demonstrated satisfactory operating history in NAT HLA to conduct a validation flight as a condition for the issuance of a CEP or NOPAC operating authorization. A requirement may exist for a validation flight of an applicant requesting an authorization to operate a new
combination of aircraft and navigation systems before adding this new combination authorization to that applicant’s OpSpec/MSpec B036.

NOTE: The principal inspector (PI) in consultation with the regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist) and a dispatch safety inspector (DSI), must determine if any of the proposed operations in CEP or NOPAC areas require ETOPS authorization, (e.g., Part 135 operator’s one-engine-inoperative (OEI) requirement to remain within 180 minutes of an adequate airport in accordance with § 135.364).

4) **North Polar (OpSpec/MSpec B055) and Antarctic Airspace** (OpSpec/MSpec B050). Applicants proposing to conduct terminal area operations within these areas must conduct validation flights. No requirement exists for validation flights for those applicants conducting overflights if previously authorized in OpSpec/MSpec B036 and B040. During validation for approval of overflights of these areas, test teams should include in-flight planning, contingencies, CNS requirements, “fuel freeze” procedures, cold weather altimetry, applicant’s reaction and passenger recovery plan, and emergency airfield procedures.

5) **Caribbean Sea, Gulf of Mexico (GOMEX), and the West Atlantic Route System (WATRS)** West of the NAT HLA Boundary. For operations into these areas, the FAA normally requires two independent high frequency (HF) transceivers (dual long-range communication systems (LRCS)); however, under specific conditions and limitations, the FAA may issue applicants OpSpec B045 in order to operate in this area with one HF transceiver (single LRCS). In addition, for operations into these areas where the FAA normally requires two LRNS (OpSpec B036), for aircraft equipped with only a single LRNS, the FAA may issue OpSpec/MSpec B054 in order to operate with only one LRNS.

NOTE: RNP-10 with a single LRNS meeting the navigation criteria can be authorized in GOMEX.

6) **Politically Sensitive Areas of Operation (OpSpec/MSpec B450).** When an inspector requires information concerning an applicant’s request to conduct operations into sensitive international areas, the inspector should follow the guidance in Volume 4, Chapter 1, Section 5, Special Navigation Areas of Operation.

E. **Special or Unique Navigation Procedures.** The FAA normally requires validation flights when an applicant proposes to use navigation procedures that it did not previously demonstrate. These procedures include:

- Pilotage,
- Free gyro or grid procedures (by qualified individuals), or
- Any combination of the preceding procedures (by qualified individuals).

NOTE: Class II navigation will not be authorized using dead reckoning (DR) procedures. For example, no Class II DR legs are authorized in GOMEX and WATRS areas.
PLANNING THE VALIDATION TESTS. An applicant that must conduct a validation test must develop and submit a test plan. The applicant must tailor the plan and test objectives to the situation. The FAA test team will verify and validate the applicant’s test plan against the requirements for the requested SAO in consultation with the regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist). The FAA test team and the applicant should use the following guidelines in planning validation tests.

A. Form and Content of the Test Plan. The variety of operational situations and requirements that determine the makeup of validation tests makes it impossible to specify the form and content for each validation test plan. The FAA has developed regulations, ACs, specific instructions in this order, and other official sources to assist the applicant and FAA inspectors in determining the necessity of validation testing and the planning of validation tests. Volume 3, Chapter 29, Section 5 contains information on the demonstration phase of proving and validation testing. This information applies to all validation testing, including tabletop exercises and validation flights.

B. FAA Test Team and Applicant Coordination. The applicant and test team must agree on the form and content of the test plan and they must establish mutual understandings of test objectives, the degree of demonstration required, and the evaluation criteria. The FAA test team must follow the guidelines contained in Volume 3, Chapter 29, Section 5. The test team should note in particular the validation test protocols and discussion items during the pre-meeting with the applicant.

C. Operational Demonstrations. Most validation tests will require some form of operational demonstration. When operational demonstrations are required, the validation test plan must include a schedule for those demonstrations. See Volume 3, Chapter 29, Section 5.

D. Determining Number of Flight-Hours. Regulations do not specify a required number of hours for a validation flight. On a case-by-case basis, the FAA determines the number of flight hours for a validation flight.

E. Revisions to Applicant Documents and Training Program. Most Special Authorizations (SA) require revisions to the applicant’s checklists, MELs, applicable operations manuals, General Maintenance Manual (GMM), and training programs. The applicant should submit these revisions with the validation test plan for FAA review and approval or acceptance, as appropriate.

F. Amendment to OpSpecs/MSpecs. All SAs require an amendment to the OpSpecs/MSpecs. The applicant should apply for the amendment when it submits the validation plan. The revisions/amendments to the OpSpecs/MSpecs that require identifying the navigation and/or communications systems installed in each aircraft type shall specifically identify the number of independent systems installed, the type of system, and critical components of that system, to comply with airspace requirements.
AREAS EVALUATED ON VALIDATION TESTS OR FLIGHTS. The types of activities and items the FAA must inspect and evaluate on validation tests or flights vary with the type of authorization the applicant requests. Examples of activities and items requiring inspection and evaluation include:

- Crew training (flight attendant (F/A) training, if applicable);
- Dispatcher, flight-follower, and flight locator training and responsibilities;
- Operations manual information and crew procedures;
- Checklists and MEL/Configuration Deviation List (CDL);
- Maintenance manual information and maintenance program;
- Equipment certifications and installation approvals;
- Reliability and accuracy of applicable operational and maintenance records;
- Operational flight control and company communication capabilities;
- Flightcrew competency in use of equipment, procedures, and techniques; and
- Coordination procedures between the flightcrew, maintenance personnel, and other ground personnel.

CARRIAGE OF REVENUE PASSENGERS ON VALIDATION FLIGHTS. Title 14 CFR does not forbid the carriage of revenue passengers on validation flights. With the concurrence of the respective regional Flight Standards division (RFSD), the test team may authorize the applicant to carry revenue passengers aboard the validation flight when the proposed operation is similar to those in the applicant’s previous experience. This paragraph contains guidelines for teams to use in making this determination. In the interest of standardized treatment, RFSDs must coordinate with AFS-200 or the General Aviation and Commercial Division (AFS-800) (as applicable) when authorizing teams to deviate from these guidelines.

A. Non-Permissible Situations. The following are examples of situations in which the FAA does not permit revenue passengers:

- When the applicant is seeking initial approval to conduct Class II navigation;
- When the applicant is seeking approval to conduct Class II navigation by an LRNS or special navigation procedures when the FAA did not give the applicant prior approval for that means of navigation;
- When the applicant has not previously operated a specific aircraft type in operations that require a special performance authorization; or
- When the applicant is seeking initial approval to conduct ETOPS.

B. Special Operational Authorization. For operations requiring a special operational authorization for approach and landing operations (paragraph 3-2437C), the FAA normally permits the carriage of revenue passengers, provided higher minimums or visual flight rules (VFR) operations are specified during the validation tests.
C. **Additional Considerations.** Consider the following factors in all cases:

- The applicant’s previous experience with the proposed kind of operation, specific aircraft, and equipment combinations;
- The FAA test team’s previous experience with the proposed kind of operation, specific aircraft, and equipment combinations;
- The in-service history and performance considerations of any new airplane, component, or other critical equipment combinations; and
- The degree of backup system redundancy and sole dependency of any particular system or component.

3-2442 **VALIDATION TABLETOP EXERCISES.** Validation testing should include validation flights and ground exercises, such as simulators and tabletop simulations. The validation test team may be able to determine some of the applicant’s capabilities with well-structured tabletop simulations in place of a flight. If the applicant intends to use tabletop simulations, it should include their use in the validation test plan. See Volume 3, Chapter 29, Section 5 for further guidance on tabletop exercises.

3-2443 **SA INFORMATION TABLES.** Tables 3-110 through 3-115 are general information references for proving and/or validation tests. Do not consider or use the tables as all-inclusive sources of information. For additional guidance and requirements, contact the regional NextGen (AXX-220) SAO specialist (formerly known as a navigation specialist).

**NOTE:** The OpSpec authorizations cited in these tables are not applicable to every type of operation. Use the OpSpec guidance in Volume 3, Chapter 18, Operations Specifications.
### Table 3-110. Special Authorization Information Table—Special Areas of Operation

*Special Areas of Operation (SAO) Specialist (formerly known as navigation specialist)*

<table>
<thead>
<tr>
<th>Special Areas of Operation: (Tables are not all inclusive)</th>
<th>Validation Test (Table Top Demo)</th>
<th>Validation Flights Required</th>
<th>Pax/Cargo Authorized Onboard</th>
<th>OpSpec/MSpec Authorizations</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Extensive Over-Water or Land Areas with Inadequate Navigational Aids (NAVAIDs) to conduct Class I Navigation</td>
<td>Yes</td>
<td>Yes, if not authorized for Class II Navigation</td>
<td>Cargo Only</td>
<td>Class II- B036 or B054</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>2. Areas of Magnetic Unreliability (AMU)</td>
<td>Yes</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>B040</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>3. North Atlantic High Level Airspace (NAT HLA)</td>
<td>Yes</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>B039</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>4. Canadian Minimum Navigation Performance Specification (C-MNPS) Airspace (Excluding AMU)</td>
<td>Yes</td>
<td>Optional</td>
<td>Cargo Only</td>
<td>B059 (Part 135 only)</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>5. Central East Pacific (CEP) Composite Airspace</td>
<td>Yes</td>
<td>Yes, if initial Class II</td>
<td>Cargo Only</td>
<td>B037</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>6. North Pacific (NOPAC) Airspace</td>
<td>Yes</td>
<td>Yes, if initial Class II</td>
<td>Cargo Only</td>
<td>B038</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>7. North Polar Airspace and Antarctic Areas of Operations (Excluding AMU)</td>
<td>Yes</td>
<td>Yes, if no AMU authorization</td>
<td>Cargo Only</td>
<td>B055</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>8. Low-Level Helicopter Offshore Areas with Inadequate NAVAIDs to Conduct Class I Navigation</td>
<td>No</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>B034, B036</td>
<td>Simulator Option</td>
</tr>
<tr>
<td>9. Restricted Areas Requiring Special Navigation Procedures</td>
<td>Yes</td>
<td>Optional</td>
<td>Cargo Only</td>
<td>B067, Non-Standard</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
</tbody>
</table>

Check with FSIMS to verify current version before using
Table 3-111. Special Authorization Information Table—Long-Range Navigation Systems
*Special Areas of Operation (SAO) specialist (formerly known as navigation specialist)

<table>
<thead>
<tr>
<th>Long Range Navigation Systems: <em>(Tables are not all inclusive)</em></th>
<th>Approved International Procedures</th>
<th>International Training</th>
<th>Validation Test (Table Top Demo)</th>
<th>OpSpec/MSpec Authorizations</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Area Navigation Systems Certificated in Accordance with the Current Edition of AC 90-45</td>
<td>Yes</td>
<td>Yes</td>
<td>Optional</td>
<td>B034</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>2. Inertial navigation systems (INS)/inertial reference systems (IRS)/inertial reference unit (IRU)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>B034, B035 or B036/B054</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>3. Global Positioning Satellite Navigational Systems En Route GPS/GLONASS/GALILEO</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>B034, B035 or B036/B054</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>4. Flight Management Computer (FMC)</td>
<td>Yes</td>
<td>Yes</td>
<td>Optional</td>
<td>B034, B035 or B036/B054</td>
<td>Consult a Regional *SAO Specialist</td>
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</table>

Table 3-112. Special Authorization Information Table—Special Navigation Procedures and/or Techniques
*Special Areas of Operation (SAO) specialist (formerly known as navigation specialist)

<table>
<thead>
<tr>
<th>Special Navigation Procedures And/Or Techniques: <em>(Tables are not all inclusive)</em></th>
<th>Validation Test (Table Top Demo)</th>
<th>Validation Flights Required</th>
<th>Pax/Cargo Authorized Onboard</th>
<th>OpSpec/MSpec Authorizations</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Free Gyro and Grid Procedures</td>
<td>Yes</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>B036</td>
<td>Consult a Regional *SAO Specialist</td>
</tr>
<tr>
<td>Special Performance Authorizations: (Tables are not all inclusive)</td>
<td>Validation Test (Table Top Demo)</td>
<td>Simulator (Option)</td>
<td>Validation Flights Required</td>
<td>Pax/Cargo Authorized Onboard</td>
<td>OpSpec/MSpec Authorizations</td>
</tr>
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</tr>
<tr>
<td>1. Extended Operations (ETOPS)</td>
<td>Yes</td>
<td>Partial</td>
<td>Yes</td>
<td>Pax and/or Cargo</td>
<td>B342 or B344 as applicable</td>
</tr>
<tr>
<td>2. Special Airport Operations Examples include:</td>
<td>Partial</td>
<td>Yes</td>
<td>No</td>
<td>Cargo Only</td>
<td>C050, C067</td>
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<tr>
<td>• High Elevation Airports</td>
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<td></td>
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<tr>
<td>• Terrain considerations</td>
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<tr>
<td>• Limited NAVAIDs</td>
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<tr>
<td>3. Powerback Operations</td>
<td>Partial</td>
<td>No</td>
<td>Yes</td>
<td>Pax and/or Cargo</td>
<td>C065</td>
</tr>
<tr>
<td>4. Destination Airport Analysis Program (DAAP) (60/80 Reduced</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Cargo Only if validated in</td>
<td>A057, C082</td>
</tr>
<tr>
<td>Landing Distance Authorization)</td>
<td></td>
<td></td>
<td></td>
<td>guidance</td>
<td></td>
</tr>
<tr>
<td>5. Reduced Vertical Separation Minimum (RVSM)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Pax and/or Cargo</td>
<td>B046</td>
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Table 3-113. Special Authorization Information Table—Special Performance Authorizations
*Special Areas of Operation (SAO) specialist (formerly known as navigation specialist)
Table 3.114. Special Authorization Information Table—Special Operational Authorizations

<table>
<thead>
<tr>
<th>Special Operational Authorizations: (Tables are not all inclusive)</th>
<th>Validation Test (Table Top Demo)</th>
<th>Simulator (Option)</th>
<th>Validation Flights Required</th>
<th>Pax/Cargo Authorized Onboard</th>
<th>OpSpec/MSpec Authorizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Category I Approach (CAT I), CAT II, or CAT III Approach and Landing Operations</td>
<td>No</td>
<td>Partial</td>
<td>No—I Yes—II &amp; III</td>
<td>Cargo Only</td>
<td>C053, C059, C060, C074, etc.</td>
</tr>
<tr>
<td>2. No Destination Weather Operations for Eligible 91K/135 Operations</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>TBD</td>
</tr>
<tr>
<td>3. Use of Automatic Landing Systems for Landing Operations</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>C061</td>
</tr>
<tr>
<td>4. Use of Manually Flown Flight Control Guidance System for Approach and Landing Operations</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>C062</td>
</tr>
<tr>
<td>5. Instrument landing system (ILS), precision runway monitor (PRM)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>C052</td>
</tr>
<tr>
<td>6. Required Navigation Performance (RNP)</td>
<td>No</td>
<td>Yes</td>
<td>No, unless initial Class II</td>
<td>N/A, unless initial Class II</td>
<td>B036</td>
</tr>
<tr>
<td>7. Use of Area Navigation Systems for Approach and Landing Operations (RNAV)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>C052, C063, C073</td>
</tr>
<tr>
<td>Unique Authorizations For Part 91K/135 Operations: (Tables are not all inclusive)</td>
<td>Validation Test (Table Top Demo)</td>
<td>Simulator (Option)</td>
<td>Validation Flights Required</td>
<td>Pax/Cargo Authorized Onboard</td>
<td>OpSpec/MSpec Authorizations</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1. Any change or addition in operating authority, such as: • VFR to instrument flight rules (IFR) • To/from Cargo, passenger, Combi Operations • Domestic to International or vice versa • Air Ambulance</td>
<td>Partial</td>
<td>No</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>As Applicable</td>
</tr>
<tr>
<td>2. Any change or addition in operating authority: Domestic to International or vice versa</td>
<td>Partial</td>
<td>No</td>
<td>No, unless flown to/from a location where special means of navigation or special circumstances exist (i.e., Class II)</td>
<td>Cargo Only</td>
<td>As Applicable</td>
</tr>
<tr>
<td>3. Addition of a rotorcraft to an all airplane certificate or vice versa</td>
<td>Partial</td>
<td>No</td>
<td>Yes</td>
<td>Cargo Only</td>
<td>As Applicable</td>
</tr>
<tr>
<td>4. Any new technologies or systems presented to AFS-200/400/800 that would require validation/proving testing</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD (CPDLC A056) (ADS-B A353/A354)</td>
</tr>
</tbody>
</table>

**RESERVED.** Paragraphs 3-2444 through 3-2460.