

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

Order 8400.13F CHG 1

National Policy

Effective Date: 8/18/22

SUBJ: Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations

- 1. Purpose of This Order. This order lists the minimum requirements for evaluation and approval of ground facilities supporting Category (CAT) I approaches and CAT II approaches to runways which do not meet all performance or equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard, and for all CAT II and CAT III approaches.
- **2. Audience.** The audience for this order is FAA personnel involved in the evaluation, implementation, and approval of ground facilities for Special Authorization (SA) CAT I instrument approaches, and for all CAT II and III instrument approaches.
- **3.** Where You Can Find This Order. You can find this order on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices and the Dynamic Regulatory System (DRS) at https://drs.faa.gov. Operators and the public can find this order on the FAA's website at https://www.faa.gov/regulations policies/orders notices and DRS.
- **4.** Explanation of Policy Changes. This change updates information in Chapter 8. This change also corrects checklist titles in Appendices C and D, updates checklists for processing/commissioning of SA CAT I/II and CAT II/III approaches, revises naming and flow of checklists for FAA aviation safety inspectors (ASI), and includes a sample sponsor letter for new approach requests.
- **5. Disposition of Transmittal Paragraph.** This change will remain in DRS until superseded by a revision to this order.

PAGE CHANGE CONTROL CHART

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U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION National Policy

ORDER 8400.13F

Effective Date: 10/25/19

SUBJ: Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations

This order provides guidance for all personnel in the approval of facilities for Category (CAT) I Runway Visual Range (RVR) 1800 at runways with reduced lighting, Special Authorization (SA) CAT I and all CAT II and CAT III.

With a growing emphasis on performance-based operations, different levels of operation may be authorized based on the flight equipment of a specific operator and the ground equipment available at specific runways. While certain ground facility requirements are needed to support all levels of either CAT I, CAT II, or CAT III operations, a higher category of operations may be performed on different "types" of ground equipment if the airborne equipment, crew training, or other factors offset any changes in ground facility requirements. In these situations, operations are predicated on the use of specific equipment and/or procedures, which will be required in the operator's applicable authorization (such as an operations specification (OpSpec), management specification (MSpec), or Letter of Authorization (LOA)).

Distribution: Electronic Only Initiated By: AFS-400

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Chapter 1. General Information

- 1. Purpose of This Order. This order lists the minimum requirements for evaluation and approval of ground facilities supporting Category (CAT) I approaches and CAT II approaches to runways which do not meet all performance or equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard, and for all CAT II and CAT III approaches. Specifically, this order addresses the following items:
- **a.** Lists the minimum requirements for CAT II and III operations at various facilities. The Federal Aviation Administration (FAA) criteria for CAT II and III operations meet ICAO CAT II and III standards.
- **b.** Lists the minimum requirements for CAT I approaches using a Runway Visual Range (RVR) minimum of 1800 feet and a decision altitude (DA) of 200 feet, and CAT I approaches using an RVR minimum as low as 1400 feet and a radio altimeter (RA) decision height (DH) as low as 150 feet height above touchdown (HAT) at runways which do not have touchdown zone (TDZ) and/or runway centerline (RCL) lighting.
- **c.** Lists the minimum requirements for CAT I approaches using an RVR minimum as low as 1400 feet and an RA DH as low as 150 feet HAT on suitable instrument landing system (ILS) equipment at runways that do not have TDZ and/or RCL lighting.
- **d.** Implements FAA policy regarding Localizer (LOC) performance with vertical guidance (LPV) approaches and a Ground Based Augmentation System (GBAS) Landing System (GLS) with a DH of 200 feet and visibility minimums of RVR 1800 to airfields with reduced lighting.
- **e.** Lists the minimum requirements for CAT II approval to runways, which do not meet the equipment requirements of a U.S. Standard or ICAO Standard.
- **f.** Implements FAA policy regarding CAT II approach operations with an RVR minimum of 1000 feet to runways, which meet U.S. and ICAO Standards for CAT II equipment, performance, and lighting.
- **2. Audience.** The audience for this order is FAA personnel involved in the evaluation, implementation, and approval of ground facilities for Special Authorization (SA) CAT I instrument approaches, and for all CAT II and III instrument approaches.
- **3.** Where You Can Find This Order. You can find this order on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices and the Dynamic Regulatory System (DRS) at https://drs.faa.gov. Operators and the public can find this order on the FAA's website at https://www.faa.gov/regulations policies/orders notices and DRS.
- **4. What This Order Cancels.** This order cancels Order 8400.13E, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, dated May 15, 2018.
- **5. Explanation of Changes.** This revision removes guidance concerning chart notes on below standard CAT I procedures that is already contained in FAA Order 8260.19, Flight Procedures

and Airspace. This revision also incorporates references to the newly published Advisory Circular (AC) 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout, and updates organizational nomenclature resulting from the recent Flight Standards Service (FS) reorganization.

6. Explanation of Appendices.

- **a.** Appendix A, References (current editions). Contains a listing of relevant ACs and FAA orders.
- **b.** Appendix B, Abbreviations and Acronyms. Contains a listing of abbreviations and acronyms used in this order.
- c. Appendix C, Sample Checklists for Evaluating Ground Facilities for SA CAT II Operations. Contains a set of checklists for use by Technical Operations Services (AJW), Air Traffic Services (AJT), Airports (ARP), Aeronautical Information Services (AJV-A), and FS personnel to evaluate potential for SA CAT II operations. Other checklists, such as checklists from previous versions of this order, may be acceptable if these checklists provide sufficient information for FS authorization. These checklists are also available on the Flight Technologies and Procedures Division (AFS-400) website at https://www.faa.gov/about/office_org/headquarte rs_offices/avs/offices/afx/afs/afs400/afs410/.
- d. Appendix D, Sample Checklists for Evaluating Ground Facilities for CAT II and CAT III Operations. Contains a set of checklists for use by AJW, AJT, ARP, AJV-A, and FS personnel to evaluate potential for standard CAT II and standard CAT III operations. Other checklists, such as checklists from previous versions of this order, may be acceptable if these checklists provide sufficient information for FS authorization. These checklists are also available on AFS-400's website at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/.
- **e. Appendix E, Sample Sponsor Letter.** Contains an example of how a sponsor letter may be written for SA approach requests.

7. Background.

- **a. Ground Navigation Equipment.** Historically, in the United States and internationally, ground navigation equipment was designated to correlate with a specific operation. For example, in ICAO Annex 10, Aeronautical Telecommunications, Volume I, Radio Navigation Aids, a Facility Performance CAT II ILS is associated with an operational performance CAT II procedure. The basic assumption of this correlation is that a certain level of performance by ground navigation equipment is necessary to support the corresponding airborne operation.
- **b.** "Type" Classification. The term "type" is used in this order to differentiate the ground facility from the CAT of flight operation (i.e., Type II ILS facility, as opposed to CAT II operations or CAT III instrument approach minimums). This distinction is intended to eliminate existing confusion between facility establishment criteria and operational criteria for approval of CAT I, CAT II, or CAT III flight operations. Typically, the type classification defines the ground equipment necessary to support precision approach and landing operations by aircraft and

operators, which meet the minimum airborne equipment requirements for that CAT of operations. While certain ground facility requirements are needed to support all levels of either CAT I, CAT II, or CAT III operations, a higher CAT of operations may be performed on different types of ground equipment if the airborne equipment, crew training, or other factors offset any changes in ground facility requirements. The higher performance capabilities of new and improved avionics have mitigated some of the performance requirements of the ground-based navigation equipment.

- **c.** Type I Facility. A Type I facility is defined as all LOC and glideslope (GS) facilities not meeting the definition of Type II or Type III and which have a published straight-in course coincident with the centerline (CL) of the runway or an offset LOC which is not offset in excess of 3.0 degrees from the CL of the runway.
- **d.** Type II Facility. A U.S. Type II facility meets or exceeds all requirements for an ICAO Facility Performance CAT II ILS as specified in ICAO Annex 10, Volume I, Chapter 3, Specifications for Radio Navigation Aids. U.S. Type II facilities are designated as such by AJW, and meet all the requirements to support CAT II approach and landing operations.
- e. Type III Facility. A U.S. Type III facility meets or exceeds all ICAO criteria as specified in ICAO Annex 10, Volume I, chapter 3 and is identified as "CAT III" in standards, recommended practices, or guidance material. A Type III facility typically consists of a dual frequency LOC which meets all CAT III requirements to at least a point 3000 feet from the approach end of the runway, a GS which meets CAT III requirements to the threshold, executive integrity monitors which identify any degradation of signal integrity exceeding CAT III standards, and a far field monitor to identify critical area incursions or signal variations in the far field which may affect signal integrity, backup transmitters, and backup power to ensure continuous power for critical systems. A Type III facility typically includes ancillary equipment such as full runway edge, end, and in-pavement lighting (e.g., High Intensity Runway Lights (HIRL), TDZ lights, and RCL lights), an Approach Lighting System with Sequenced Flashing Lights (ALSF)-2, and power changeover requirements to ensure continuous power for critical lighting systems. Type III facility requirements reflect the fact that CAT III operations are highly dependent on the accuracy, integrity, and reliability of ground equipment throughout approach, landing, and rollout.
- **8. Distribution.** This order is distributed to all FS divisions, branches, and offices. This order is distributed electronically only.
- 9. Directive Feedback Information. AFS-400 establishes criteria for the procedures authorized by this order. Direct questions or comments to AFS-400 at 202-267-8795. For your convenience, FAA Form 1320-19, Directive Feedback Information, is the last page of this order. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this order on FAA Form 1320-19, and forward your comments to the originating office for consideration. If an interpretation is needed immediately, call the originating office for guidance. However, use FAA Form 1320-19 as a followup to verbal conversation.

Chapter 2. CAT I RVR 1800 Approach Operations

1. Scope. This order authorizes the creation and implementation of CAT I approaches to include LPV and GLS, with a DA of 200 feet and visibility minimums of RVR 1800 at runways with reduced lighting. Existing Title 14 of the Code of Federal Regulations (14 CFR) part 97 procedures which did not qualify for RVR 1800 due to absence of TDZ and CL may also be amended to include RVR 1800. Such operations require the use of flight director (FD) or autopilot (AP) or Head-Up Display (HUD) to DA.

2. Requirements.

- a. CAT I Approaches to RVR 1800. To be eligible for CAT I approaches to RVR 1800, runways must have, or be qualified for, a part 97 Standard Instrument Approach Procedure (SIAP). If the facility/approach has restrictions, it must be approved by AFS-400 in coordination with Flight Program Operations (AJF-0) on a case-by-case basis.
 - **b.** Runway Qualifications. Runways must have, or be qualified for, a CAT I DA of 200 feet or less and a visibility minimum of not more than RVR 2400.
 - **c.** Runway Declared Landing Distance. The runway must have a declared landing distance of 5000 feet or greater. For runways without published declared distances, the declared distances may be assumed to be equal to the physical length of the runway minus any threshold displacement.

d. Required Lighting and Ancillary Equipment.

- (1) A simplified short approach lighting system with runway alignment indicator lights (SSALR), medium intensity approach lighting system with runway alignment indicator lights (MALSR), or ALSF-1/ALSF-2;
 - (2) HIRL; and
 - (3) A TDZ sensor of an RVR reporting system.

e. Instrument Approach Procedure (IAP).

- (1) The threshold crossing height (TCH), reference datum height (RDH), or achieved reference datum height (ARDH) must not exceed 60 feet.
 - (2) For a new or existing part 97 CAT I SIAP, the DA must not exceed 200 feet.

3. Operational Approval.

a. Checklists. Completion of the checklists in Appendix C, Sample Checklists for Evaluating Ground Facilities for SA CAT II Operations, or Appendix D, Sample Checklists for Evaluating Ground Facilities for CAT II and CAT III Operations, is not required.

b. Operations for RVR 1800. When RVR 1800 operations are authorized, it will be documented on the applicable FAA Form 8260-3, ILS Standard Instrument Approach Procedure. Individual SIAPs become available to approved operators by amending the part 97 CAT I SIAP.
When approved, and prior to the part 97 CAT I SIAP being amended, a Notice to Air Missions (NOTAM) will be issued which authorizes RVR 1800.

c. CAT I Operations to RVR 1800. CAT I operations to RVR 1800 will be added to existing CAT I SIAPs in accordance with a schedule established by the Instrument Flight Procedures (IFP) Validation Team.

Chapter 3. SA CAT I Approach Operations

1. Scope. This order authorizes CAT I approaches with a DH as low as 150 feet (HAT using RA minimums) and a visibility minimum as low as RVR 1400 on suitable ILS equipment at runways with reduced lighting. These operations require the use of airborne equipment in accordance with AC 120-118.

2. Airport Traffic Control Tower (ATCT). SA CAT I operations require an operational ATCT to ensure separation of airborne and ground traffic in low-visibility conditions, to ensure proper protection of the LOC and GS critical areas, and to accomplish the required monitoring of ground equipment.

3. Requirements.

- **a.** CAT I Approaches as Low as RVR 1400. To be eligible for SA CAT I approaches as low as RVR 1400 and 150 feet DH, runways must have, or be qualified for, a part 97 SIAP. If the instrument approach has restrictions, it must be approved by AFS-400 in coordination with AJF-0 on a case-by-case basis.
- **b.** Runway Qualifications. Runways must have, or be qualified for, CAT I DA of 200 feet and a visibility minimum of not more than RVR 2400.
- **c. SA CAT I Landing Minimums.** Single-pilot operators are prohibited from using SA CAT I landing minimums.
- **d. Runway Declared Landing Distances.** The runway must have a declared landing distance of 5000 feet or greater. For runways without published declared distances, the declared distances may be assumed to be equal to the physical length of the runway minus any threshold displacement.

e. Required Lighting and Ancillary Equipment.

- (1) An SSALR, MALSR (with threshold bar that is separate from runway end lights), or ALSF-1/ALSF-2;
 - (2) HIRL; and
 - (3) A TDZ sensor of an RVR reporting system.

f. IAP Qualifications.

- (1) The commissioned glide path (GP) angle shall be 3.0 degrees. Angles other than 3.0 degrees require approval of the Flight Operations Group (AFS-410).
 - (2) The TCH, RDH, or ARDH must not exceed 60 feet.
- (3) Obstacle Free Zones (OFZ) must meet the CAT I OFZ standards described in AC 150/5300-13, Airport Design.

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(4) Obstructions must not penetrate the approach light plane in accordance with FAA Order JO 6850.2, Visual Guidance Lighting Systems, and AC 150/5340-30, Design and Installation Details for Airport Visual Aids.

- (5) The GS clearance below path checks must be satisfactory to runway threshold.
- (6) On runways with established CAT II/III approaches, apply the Terminal Instrument Procedures (TERPS) CAT II/III missed approach standards in accordance with FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS). On runways with suitable CAT I approaches, apply the CAT I missed approach criteria specified within Order 8260.3. When applying the CAT I missed approach criteria, obstacles located within section 1 of the missed approach, including taxiing or holding aircraft, may be considered acceptable and excluded from consideration. This is provided that the obstacle type and the prerequisites for exclusion meet policy requirements for acceptable obstacles as specified within Order 8260.3, Section 10-6, PA and APV Obstacle Assessment. If the DH is increased to accommodate an obstacle in accordance with TERPS standards, the RVR must be increased in accordance with Table 3-1 below. If the DH using TERPS standards is increased by 50 feet or less to accommodate an obstacle, the SA CAT I DH need not be adjusted.

 HAT Range
 RVR

 150-170
 1400

 171-185
 1600

Table 3-1. Minimum Visibility Values

4. Operational Approval.

- **a.** Checklists. Completion of all checklists in Appendices C and D is not required. AJF-0 submits a completed Aviation System Standards (AVN) ILS CAT Checklist upon completion of the flight inspection, if applicable.
- **b.** Airport Sponsor Involvement. Airport sponsor involvement (letter of concurrence) is required and must be submitted through the appropriate Airports District Office (ADO) or Airport Regional Office, as applicable. This may include the willingness to remove obstacles, provide resources such as personnel and funding, and install additional equipment such as lights, markings, signage, etc.
- c. SA CAT I Operations. When SA CAT I operations are authorized, it will be documented on the applicable FAA Form 8260-3. When operators are approved to use the new minimum, it will be authorized by the appropriate operations specification (OpSpec)/management specification (MSpec)/Letter of Authorization (LOA). Individual SIAPs become available to approved operators upon publication of the part 97 CAT I SIAP.

Chapter 4. Standard CAT II Approach Operations

1. **Scope.** This order authorizes CAT II approaches with a DH as low as 100 feet and visibility minimums as low as RVR 1200. This order addresses the ground equipment requirements necessary for approval of a CAT II approach. For information on other requirements, refer to AC 120-118.

- **2.** ATCT. CAT II operations require an operational ATCT to ensure separation of airborne and ground traffic in low-visibility conditions, to ensure proper protection of the LOC and GS critical areas, and to accomplish the required monitoring of ground equipment.
- **3.** Required Lighting and Ancillary Equipment. To be eligible for standard CAT II operations at RVR 1600 or 1200, runways must have, or be qualified for, a part 97 CAT I SIAP with a DH of 200 feet, with at least the following ancillary components:
 - An ALSF-2,
 - HIRL,
 - TDZ lighting, and
 - RCL lighting.
- a. Runway and Approach Lighting Systems. Runway and approach lighting systems must have standby power with a 1-second transfer and must be remotely monitored so that aircraft can be notified immediately if they become inoperative.
- **b.** CAT II Operations. All CAT II operations require a touchdown RVR sensor. A rollout sensor is also required for CAT II operations below RVR 1600. When the runway is in excess of 8000 feet in length, a midpoint RVR sensor is required in addition to the touchdown and rollout sensors for CAT II operations below RVR 1600. AFS-400 may approve CAT II operations on a runway in excess of 8000 feet with only a TDZ and rollout sensor on a case-by-case basis.
- **c. Power Transfer Requirements.** The touchdown RVR system must have standby power with a 1-second transfer in the event of a primary power source outage.

4. ILS.

- a. ILS Performance Standards. The ILS must be certified and maintained, and the critical areas must be protected to provide not less than performance classification II/D/2. ILS performance standards to Point D are defined in FAA Order 8200.1, United States Standard Flight Inspection Manual. Level 2 Continuity of Service (CoS) requirements are defined in FAA Order 6750.24, Instrument Landing System and Ancillary Electronic Component Configuration and Performance Requirements; and FAA Order JO 6750.57, Instrument Landing System Continuity of Service Requirements and Procedures. Additionally, in accordance with Order 6750.24, operational constraints may be used to accommodate excessively large critical areas.
- **b.** Transmitter Requirements. The LOC and GS must be dual transmitter and dual monitor systems to provide the required redundancy and integrity to support CAT II approach and landing operations.

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c. Inner Marker (IM) Requirement. An IM is not required to support CAT II approach and landing operations, unless an RA minimum is not authorized due to terrain, obstacles, or other local requirements.

- **d. Status Monitoring.** The LOC, GS, and IM (if operationally required due to terrain) operational status (e.g., on/off) must be remotely monitored by the controlling air traffic control (ATC) element. This status monitoring is distinct from any remote maintenance monitoring for the benefit of maintenance personnel and distinct from the local executive integrity monitor, which automatically shuts down the facility when monitored parameters exceed specified tolerances. The remote status monitoring can be implemented by landlines, through-the-air receivers, fiber optics, radio links, etc.
- **e. Backup Power Source.** The LOC, GS, and IM (if operationally required) must have an approved backup power source, which provides an uninterrupted power supply in the event of a primary power source outage.
 - **f. LOC Far Field Monitor.** An LOC far field monitor is required.

5. IAP.

- **a.** LOC Final Course Alignment. The LOC final course alignment must be coincident with the RCL.
- **b. GP Angle.** The commissioned GP angle shall be 3.0 degrees. Angles other than 3.0 degrees require approval of FS.
- **c.** TCH/RDH/ARDH. The commissioned TCH/RDH/ARDH shall be between 50 and 60 feet, with the optimum being 55 feet. Any deviation must meet current TERPS CAT II/III development standards, or must have a formal FS waiver to TERPS.
- **d. OFZ Standards.** OFZ must meet the CAT II/III OFZ standards described in AC 150/5300-13.
- **e. Obstructions.** Obstructions must not penetrate the approach light plane in accordance with Order JO 6850.2 and AC 150/5340-30.
- **f. Missed Approach Segment (MAS).** The MAS must meet the current TERPS CAT II/III development standard.
- **g. Aeronautical Information Services (AJV-A) Procedures.** AJV-A develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP.

6. Operational Approval.

a. Standard CAT II SIAP Requests. Any operator or organization can initiate requests for standard CAT II SIAPs for a specific runway.

b. Checklists. Distribution and coordination of all checklists in Appendix D is the responsibility of the appropriate AFS-400 representative. Each checklist must be completed and signed by appropriate personnel. However, further confirmation of all items on the checklists is at the discretion of the appropriate AFS-400 representative.

- **c. Airport Sponsor Involvement.** Airport sponsor involvement (letter of concurrence) is required and must be submitted through the appropriate ADO or Airport Regional Office, as applicable. This may include the willingness to remove obstacles, provide resources such as personnel and funding, and install additional equipment such as lights, markings, signage, etc.
- **d.** Responsibility for Maintaining Performance Classification Standards. AJW must agree to install/adjust and maintain the facility to the required performance classification standard as described in this order and in Order 8200.1, and ensure that it meets integrity, continuity, and Mean Time Between Outages (MTBO) requirements as described in Order 6750.24 and Order JO 6750.57.
- **e. Flight Inspection Tolerances.** The approach must be certified to CAT II flight inspection tolerances.
- **f. Operational Review and Approval.** Operational review and approval by the appropriate AFS-400 representative of a particular aircraft type and site-specific performance regarding "special terrain" airport runways is necessary for all CAT II minimum approvals that are predicated on the use of autoland or other flight guidance systems (FGS) (e.g., HUD) to touchdown.
- **g. Approach System Failures.** Any failures of the approach system and ancillary components, which support CAT II operations that would normally downgrade the system, must be acted on in accordance with the procedures contained in Order 6750.24.

Chapter 5. SA CAT II Approach Operations

- 1. Scope. This order authorizes SA CAT II approaches with a DH as low as 100 feet and visibility minimums as low as RVR 1200 using aircraft autoland or HUD approved to touchdown. CAT II procedures developed and approved using the criteria contained in previous versions of this order do not require any additional changes for continued use, but must continue to meet either the criteria at initial approval or the current criteria in this order. The instrument approach and ground facilities must meet all CAT II requirements as listed in Chapter 4, Standard CAT II Approach Operations, to support CAT II operations, except for the items specifically identified as not required in this chapter. Current SA CAT II approaches are based on CAT I ILS equipment; however, SA approaches that meet acceptable levels of safety and are approved for CAT I approaches may be approved through AFS-400.
- 2. ATCT. SA CAT II operations require an operational ATCT to ensure separation of airborne and ground traffic in low-visibility conditions, to ensure proper protection of the LOC and GS critical areas, and to accomplish the required monitoring of ground equipment.
- **3.** Runways. The runway must have a declared landing distance of 6000 feet or greater. For runways without published declared distances, the declared distances may be assumed to be equal to the physical length of the runway minus any threshold displacement.
- **4.** Required Lighting and Ancillary Equipment. To be eligible for SA CAT II, runways must have, or be qualified for, a part 97 CAT I SIAP with a DH of 200 feet and a visibility minimum not more than RVR 1800, with at least the following ancillary components:
 - SSALR,
 - MALSR (with threshold bar that is separate from runway end lights),
 - ALSF-1/ALSF-2, and
 - HIRL.
- **a. SA CAT II Operations.** SA CAT II operations at RVR 1600 require a TDZ sensor of an RVR reporting system. SA CAT II operations at RVR 1200 require not less than two sensors of an RVR reporting system, and one of the required sensors must be for the TDZ. When the runway is in excess of 8000 feet in length, a midpoint RVR sensor is required in addition to the touchdown and rollout sensors for CAT II operations below RVR 1600. AFS-400 may approve CAT II operations on a runway in excess of 8000 feet with only a TDZ and rollout sensor on a case-by-case basis.
- **b.** Runway Lighting Systems. Runway lighting systems must have standby power with a 1-second transfer and must be remotely monitored so that aircraft can be notified immediately if they become inoperative. An alternative for when remote monitoring is not available is to station a cognizant person to visually monitor the runway lighting system during Low-Visibility Operations (LVO), who immediately notifies the controlling ATC element if they become inoperative.
- **c. Approach Lighting System.** The approach lighting system does not require standby power or remote monitoring.

5. ILS.

a. Approach or Approach Facility Restrictions. If the approach or approach facility has restrictions, it must be approved by AFS-400 in coordination with AJF-0 on a case-by-case basis. The approach must be certified and maintained, and the critical areas must be protected to provide not less than performance classification II/D/2. ILS performance standards to Point D are defined in Order 8200.1. Level 2 CoS requirements are defined in Order 6750.24 and Order JO 6750.57. Additionally, in accordance with Order 6750.24, operational constraints may be used to accommodate excessively large critical areas.

- **b.** Transmitter Facilities. Dual transmitter facilities are recommended, but single transmitter facilities are also acceptable. The critical area requirement for single frequency systems may be too large to protect; therefore, dual frequency systems are required.
- **c. IM Requirement.** An IM is not required to support CAT II approach and landing operations, unless an RA minimum is not authorized due to terrain, obstacles, or other local requirements.
- d. ATC Element Remote Monitoring. The LOC, GS, and IM (if operationally required due to terrain) operational status (e.g., on/off) must be remotely monitored by the controlling ATC element. This status monitoring is distinct from the remote maintenance monitoring done for the benefit of maintenance personnel and distinct from the local executive integrity monitor, which automatically shuts down the facility when monitored parameters exceed specified tolerances. The remote status monitoring can be implemented by landlines, through-the-air receivers, fiber optics, radio links, etc. An alternative for when none of these is available is to station a cognizant person at each subsystem during LVOs, who immediately notifies the controlling ATC element when the LOC or GS is turned off by the executive integrity monitor.
 - e. LOC Far Field Monitor. An LOC far field monitor is not required.
- **6. IAP.** AJV-A develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP.

7. Operational Approval.

- **a. SA CAT II SIAP Requests.** Any operator or organization can initiate requests for SA CAT II SIAPs for a specific runway.
- **b.** Checklists. Distribution and coordination of all checklists in Appendix C is the responsibility of the appropriate AFS-400 representative. Each checklist must be completed and signed by appropriate personnel. However, further confirmation of all items on the checklists is at the discretion of the appropriate AFS-400 representative.
- **c. Airport Sponsor Involvement.** Airport sponsor involvement (letter of concurrence) is required and must be submitted through the appropriate ADO or Airport Regional Office, as applicable. This may include the willingness to remove obstacles, provide resources such as personnel and funding, and install additional equipment such as lights, markings, signage, etc.

d. Responsibility for Maintaining Performance Classification Standards. AJW must agree to adjust and maintain the facility to a CAT II performance classification standard and ensure that it meets at least Level 2 integrity, continuity, and MTBO requirements. (For classification system ratings, refer to Order 6750.24 and Order JO 6750.57.)

- **e.** Flight Inspection Tolerances. The approach must be certified to CAT II flight inspection tolerances including the LOC CAT III structure to Point D. The first two characters of the ILS performance classification system rating will be published in the Airport/Facility Directory (A/FD) section of the appropriate Chart Supplement (CS).
- **f. Operational Review and Approval.** Operational review and approval by AFS-400 of a particular aircraft type and site-specific performance regarding "special terrain" airport runways is necessary for CAT II minimum approvals because it is predicated on the use of autoland or other FGSs (e.g., HUD) to touchdown.
 - **g. Standard CAT II and III Facility Authorizations.** Approved standard CAT II and III facilities are also authorized for continued CAT II operations in the event of a failure of TDZ and/or RCL lighting, or a downgrade from an ALSF-1 or ALSF-2 to an SSALR if authorized in the operator's OpSpec, MSpec, or LOA.
 - h. ICAO Operational Performance CAT II. This operation cannot be promulgated as an ICAO operational performance CAT II due to the lack of TDZ, RCL, and ALSF-2 lighting systems, as required by ICAO Annex 14, Aerodromes. Minus those exceptions, however, any failures that would normally downgrade the system (including any changes to required procedures, such as visual or remote monitoring procedures) based on directive requirements such as Order 6750.24, etc., must be acted on in accordance with the standard procedures in effect for any CAT II authorization.

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Chapter 6. CAT II RVR 1000 Approach Operations

1. **Scope.** This order authorizes CAT II approaches with a DH as low as 100 feet and visibility minimums of RVR 1000 using aircraft autoland or HUD approved to touchdown to runways which meet all CAT II equipment, performance, and lighting requirements.

- **2.** ATCT. CAT II operations require an operational ATCT to ensure separation of airborne and ground traffic in low-visibility conditions to ensure proper protection of the LOC and GS critical areas and to accomplish the required monitoring of ground equipment.
- **3.** Required Lighting and Ancillary Equipment. To be eligible for CAT II operations at RVR 1000, runways must meet all equipment, performance, and lighting requirements for a standard CAT II runway as listed in Chapter 4. Additionally, airports approved for scheduled air carrier operations below RVR 1200 are required to have some or all of the various lighting systems (e.g., taxiway CL lights, runway guard lights (RGL), stop bars, and clearance bars) discussed in AC 150/5340-30, Chapter 4, Taxiway Lighting Systems, per the criteria in AC 120-57, Surface Movement Guidance and Control System; and the FAA-approved Surface Movement Guidance and Control System (SMGCS) plan.

4. ILS.

- **a. CAT II Facility Requirements.** The ILS must meet all requirements of a CAT II ILS facility as listed in Chapter 4.
- **b. ILS Performance Standards.** The ILS must be certified and maintained, and the critical areas must be protected to provide not less than performance classification II/D/2. ILS performance standards to Point D are defined in Order 8200.1. Level 2 CoS requirements are defined in Order 6750.24 and Order JO 6750.57. Additionally, in accordance with Order 6750.24, operational constraints may be used to accommodate excessively large critical areas.
- **5. IAP.** AJV-A develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP.

6. Operational Approval.

- **a.** Checklists. Completion of the checklists in Appendix D is not required for runways with published CAT II minimums to RVR 1200. When implementing new CAT II or CAT III minimums, CAT II to RVR 1000 is an option on the checklists in Appendix D.
- **b. CAT II SIAP Requests.** Any operator or organization can initiate requests for CAT II SIAPs to RVR 1000 for a specific runway.
- **c. CAT II Operations to RVR 1000.** CAT II operations to RVR 1000 will be added to existing CAT II SIAPs in accordance with a schedule established by the IFP.
- **d.** Flight Inspection Tolerances. The ILS must be certified to CAT II flight inspection tolerances including LOC CAT III structure to Point D. The first two characters of the ILS

performance classification system rating will be published in the A/FD section of the appropriate CS.

e. Operational Review and Approval. Operational review and approval by AFS-400 of a particular aircraft type and site-specific performance regarding "special terrain" airport runways is necessary for CAT II minimum approvals because it is predicated on the use of autoland or other FGSs (e.g., HUD) to touchdown.

Chapter 7. Standard CAT III Approach Operations

- 1. Scope. This order authorizes CAT III approaches with minimums as low as RVR 300 without a DH. This order addresses the ground equipment requirements necessary for approval of a CAT III ILS approach. For information on other requirements, refer to AC 120-118.
- **2.** ATCT. CAT III operations require an operational ATCT to ensure separation of airborne and ground traffic in low-visibility conditions, to ensure proper protection of the LOC and GS critical areas, and to accomplish the required monitoring of ground equipment.
- **3.** Required Lighting and Ancillary Equipment. To be eligible for CAT III operations, runways must have at least the following ancillary components:
 - An ALSF-2,
 - HIRL,
 - TDZ lighting, and
 - RCL lighting.
- a. Runway and Approach Lighting Systems. Runway and approach lighting systems must have standby power with a 1-second transfer and must be remotely monitored so that aircraft can be notified immediately if they become inoperative.
- **b. CAT III Operations.** CAT III operations require a TDZ, midpoint, and rollout sensor of an RVR reporting system. AFS-400 may approve CAT III operations on a runway with only two RVR sensors (a TDZ and either a midpoint or rollout RVR sensor) on a case-by-case basis.
 - **c. Power Transfer Requirements.** In the event of a primary power source outage, each required RVR system must have standby power with a 1-second transfer.
 - **d. Runways.** A grooved runway is required for standard CAT III approach operations.
 - **e.** Airport Lighting System Requirements. Airports approved for scheduled air carrier operations below RVR 1200 are required to have some or all of the various lighting systems (e.g., taxiway CL lights, RGL, stop bars, and clearance bars) discussed in AC 150/5340-30, chapter 4, per the criteria in AC 120-57 and the FAA-approved SMGCS plan.

4. ILS.

- **a.** ILS Certification. The ILS must be certified and maintained; and the critical areas must be protected to provide not less than performance classification:
 - (1) III/D/3 for operations as low as RVR 700,
 - (2) III/E/3 for operations as low as RVR 600, or
 - (3) III/E/4 for operations as low as RVR 300.

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b. ILS Performance Standards. ILS performance standards to Point D or Point E are defined in Order 8200.1. Level 3 and Level 4 CoS requirements are defined in Order 6750.24 and Order JO 6750.57. Additionally, in accordance with Order 6750.24, operational constraints may be used to accommodate excessively large critical areas.

- c. CAT III Approach and Landing Operations. The LOC and GS must be dual transmitter and dual monitor systems to provide the required redundancy and integrity to support CAT III approach and landing operations.
- **d. Status Monitoring.** The LOC and GS, and IM (if operationally required due to terrain) operational status (e.g., on/off) must be remotely monitored by the controlling ATC element. This status monitoring is distinct from any remote maintenance monitoring for the benefit of maintenance personnel and distinct from the local executive integrity monitor, which automatically shuts down the facility when monitored parameters exceed specified tolerances. The remote status monitoring can be implemented by landlines, through-the-air receivers, fiber optics, radio links, etc.
- **e. Backup Power Source.** The LOC, GS, and IM (if operationally required) must have a backup power source, which provides an uninterrupted power supply in the event of a primary power source outage.
 - f. LOC Far Field Monitor. An LOC far field monitor is required.

5. IAP.

- **a.** LOC Final Course Alignment. The LOC final course alignment must be coincident with the RCL.
- **b. GP Angle.** The commissioned GP angle shall be 3.0 degrees. Angles other than 3.0 degrees require approval of FS.
- **c. TCH/RDH/ARDH.** The commissioned TCH/RDH/ARDH shall be between 50 and 60 feet, with the optimum being 55 feet. Any deviation must meet current TERPS CAT II/III development standards, or must have a formal FS waiver to TERPS.
- **d. OFZ Standards.** OFZs must meet the CAT II/III OFZ standards described in AC 150/5300-13.
- **e. Obstructions.** Obstructions must not penetrate the approach light plane in accordance with Order JO 6850.2 and AC 150/5340-30.
 - **f. MAS.** The MAS must meet the current TERPS CAT II/III development standard.
- **g. AJV-A Procedures.** AJV-A develops these procedures in accordance with the standard TERPS CAT III development criteria and process as a part 97 SIAP.

6. Operational Approval.

a. Standard CAT III SIAP Requests. Any operator or organization can initiate requests for standard CAT III SIAPs for a specific runway.

- **b.** Checklists. Distribution and coordination of all checklists in Appendix D is the responsibility of the assigned AFS-400 specialist. Each checklist must be completed and signed by appropriate personnel. However, further confirmation of all items on the checklists is at the discretion of the assigned AFS-400 specialist.
- **c. Airport Sponsor Involvement.** Airport sponsor involvement (letter of concurrence) is required and must be submitted through the appropriate ADO or Airport Regional Office, as applicable. This may include the willingness to remove obstacles, provide resources such as personnel and funding, and install additional equipment such as lights, markings, signage, SMGCS implementation, etc.
- **d.** Responsibility for Maintaining Performance Classification Standards. AJW must agree to install/adjust and maintain the facility to the required performance classification standard as described in this order and in Order 8200.1, and ensure that it meets integrity, continuity, and MTBO requirements as described in Order 6750.24 and Order JO 6750.57.
- **e.** Flight Inspection Tolerances. The approach must be certified to CAT III flight inspection tolerances.
- **f.** Operational Review and Approval. Operational review and approval, by the assigned AFS-400 specialist of a particular aircraft type and site-specific performance regarding "special terrain" airport runways is necessary for all CAT III minimum approvals that are predicated on the use of autoland or other FGSs (e.g., HUD) to touchdown.
- **g. Approach System Failures.** Any failures of the instrument approach and ancillary components which support CAT III operations that would normally downgrade the system must be acted on in accordance with the procedures contained in Order 6750.24. For runways with approved takeoff minimums less than RVR 500, a GS failure should not negate the use of guided takeoff operations. An appropriate NOTAM must identify that the inoperative/unusable portion of the system does not affect takeoff operations.
- **h.** Eligibility. Only those operators with an authorized OpSpec, MSpec, or LOA for CAT III operations using aircraft currently operationally approved for CAT III operations (i.e., autoland or HUD approved to touchdown capability) may be considered eligible for these operations.

Chapter 8. Responsibilities

1. Flight Standards Service (FS).

- a. Flight Procedures and Airspace Group (AFS-420) Specialist. AFS-420 will assign a specialist within the appropriate geographical region (Eastern/Central/Western) to coordinate, distribute, and review all checklists. For CAT I RVR 1800 and RVR 1400 candidate approaches, the specialist will review the proponent's documentation and confirm the facility's compliance with this order.
- **b.** Sponsor Letter. AFS-400 ensures airport sponsor involvement (letter of concurrence) for all CAT II/III operations. The sponsor letter is an official request on behalf of airport management for a new procedure and an acknowledgement of the responsibilities and possible costs that an airfield may incur with a new approach procedure. The letter can be signed by any management member of authority at the airfield such as the Airfield Manager, Department of Aviation or Airport Authority. The letter can take any form that the requesting party prefers for correspondence but needs to note that they understand the airport may be responsible for costs such as signage, airfield lighting, obstacle removal, assigning personnel, etc. The airport cannot request the new instrument procedure via the FAA IFP Information Gateway until the sponsor letter is signed by airport management.
- c. Checklists. Checklists are required any time there has been a change and/or increase in the level of service on a runway. Typically, all items must be completed on all checklists; however, the assigned AFS-420 specialist may, at their discretion, delay/modify the required checklists items based on airport construction schedules, installation, or modification of required equipment. Checklists are not required for SA CAT I. (See Chapter 3, SA CAT I Approach Operation, Subparagraph 4a, Checklists.) The AFS-420 specialist assigned responsibility for the candidate airport will coordinate the procedure request with the IFP Validation Team. AFS-420 is also responsible for the distribution, collection, and review of the SA CAT II and CAT II/III checklists from Technical Operations Services (AJW), Air Traffic Services (AJT), Airports (ARP), and Aviation System Standards (AVN). AFS-400 will review each checklist for completeness and notify Aeronautical Information Services (AJV-A) that all requirements have been met. When the completed AVN checklist is returned to the AFS-400 specialist, AFS-400 will review the completed checklists for completeness. AFS-420 will maintain a copy of all completed checklists and a record of airport sponsor concurrence for as long as the approved procedure remains active. This requirement does not relieve AJF, AJW, AJT, and ARP from their responsibility to maintain required checklist items in accordance with this order and other applicable FAA directives as long as the approved procedure remains active.
- **d. Minimums.** When implementing CAT II/III minimums on new or existing equipment and approaches, the assigned specialist will request that AJW set or reset the monitor alarm limits and begin the CoS evaluation in accordance with Order JO 6750.57.
- **e. Project Completion.** The assigned AFS-420 specialist will notify AFS-410 whenever facilities are approved, modified, or deleted. The certificate management office (CMO), Flight Standards District Office (FSDO), or responsible Flight Standards office evaluates proponent requests, approves training, and amends or issues OpSpecs, MSpecs, or LOAs.

f. Instrument Flight Procedures (IFP) Validation Team. Evaluates and sets the priority for the procedure development in accordance with FAA Order 8260.43, Flight Procedures Management Program.

- g. Technical Operations Services (AJW). Completes and maintains a copy of the evaluation checklist to allow assessment of runways for all CAT II and CAT III operations (including SA CAT II) and returns the completed checklist to the assigned AFS-400 specialist. Ensures that LOC and GS beam performance, monitoring limits, and shutdown delays are maintained to the required tolerances; and that critical area boundaries are defined to protect CAT II and CAT III operations. When implementing CAT II/III minimums on new or existing equipment, resets the monitor alarm limits, as appropriate, and completes the CoS evaluation in accordance with Order JO 6750.57. Establishes and maintains ILS remote status monitoring capability (for LOC, GS, and marker beacons, if applicable) at the controlling ATC location. In the event of temporary failures of the remote status indications, provides visual monitoring and immediate notification of status changes to the controlling ATC element if personnel are available.
- 2. Air Traffic Organization (ATO) Air Traffic Services (AJT). Completes and maintains a copy of the evaluation checklist to assess runways for all CAT II and CAT III operations (including SA CAT II), including protection of the LOC critical area for autoland operations, and returns the completed checklist to the assigned AFS-400 specialist. Supporting the implementation of CAT II and CAT III operations ensures that the applicable procedures are adhered to and accomplished per established guidelines. This may include protection of ILS critical areas and weather reporting requirements for operating ATC towers, both Federal and non-Federal. Provides notification and training to all personnel on the new minimums or procedure. Documents agreements with the airport authority for notification of inoperative runway lights if that system does not meet standards. Upon failure of runway and approach lighting systems (whether notified by remote status monitoring capability or visual inspections), implements established procedures to advise pilots of a runway or approach lighting system failure. Ensures procedures are in place to facilitate CAT II or CAT III approach and landing operations on the procedure publication date.
- **3. Regional Airports Division.** Completes and maintains a copy of the evaluation checklist to assess runways for all CAT II and CAT III operations (including SA CAT II) and returns the completed checklist to the assigned AFS-400 specialist. Coordinates with airport operators to evaluate applicability of CAT II and CAT III requirements such as lights, signs, markings, etc.
- 4. Aeronautical Information Services (AJV-A).
- a. The National Flight Procedures Office (NFPO). Supports implementation of CAT II/III operations by participating in the IFP through the Flight Procedures Office (FPO). The NFPO amends the current CAT I procedure to include RVR 1800, amends the current CAT II procedure to include RVR 1000, and/or develops CAT I to RVR 1400, standard CAT II, standard CAT III, and SA CAT II procedures in accordance with the guidelines established by this order. The NFPO will develop or amend the procedure in accordance with the priority established by the IFP.

b. Flight Program Operations (AJF-0). In conjunction with the AJW organization, accomplishes the following according to the operation being evaluated:

- (1) CAT I Operations to RVR 1800. Certify that the approach has no restrictions to LOC course structure and alignment or GP structure, and verify these standards on subsequent flight inspections. If the approach has restrictions, it must be approved by AFS-400 in coordination with AJF-0 on a case-by-case basis. If the facility cannot continue to maintain the required performance, take action to restrict the facility in accordance with the standard CAT I criteria in Order 8200.1.
- (2) SA CAT I Operations. Certify that the approach has no restrictions to LOC course structure and alignment or GP structure, and verify these standards on subsequent flight inspections. If the approach has restrictions, it must be approved by AFS-400 in coordination with AJF-0 on a case-by-case basis. If the facility cannot continue to maintain the required performance, take action to restrict the facility in accordance with the standard CAT I criteria in Order 8200.1. Also, complete the evaluation checklist to allow assessment of runways for SA CAT I operations, and return the checklist to the FS assigned specialist.
 - (3) Standard CAT II Operations. Certify that the approach conforms to the applicable flight inspection-related performance requirements stated in Chapter 4, subparagraph 4a, and verify these standards on subsequent flight inspections. The GS must meet CAT II performance requirements to Point T, as specified in Order 8200.1. If the facility cannot continue to maintain the required performance, take action to restrict the facility, such as issuing NOTAMs, if the approach facility or other required equipment fails to meet its performance requirements in accordance with the standard CAT II criteria in Order 8200.1. Also, complete the evaluation checklist to allow assessment of runways for CAT II operations, and return the checklist to the FS assigned specialist.
 - (4) SA CAT II Operations. Certify that the approach conforms to the applicable flight inspection-related performance requirements stated in Chapter 5, subparagraph 5a, and verify these standards on subsequent flight inspections. The GS must meet CAT II performance requirements to Point T, as specified in Order 8200.1. If the facility cannot continue to maintain the required performance, take action to restrict the facility, such as issuing NOTAMs, if the approach facility or other required equipment fails to meet its performance requirements in accordance with the standard CAT II criteria in Order 8200.1. Also, complete the evaluation checklist to allow assessment of runways for CAT II operations, and return the checklist to the FS assigned specialist.
 - (5) CAT II Operations to RVR 1000. Certify that the approach conforms to the applicable flight inspection-related performance requirements stated in Chapter 6, subparagraph 4b, and verify these standards on subsequent flight inspections. The GS must meet CAT II performance requirements to Point T, as specified in Order 8200.1. If the facility cannot continue to maintain the required performance, take action to restrict the facility, such as issuing NOTAMs, if the instrument facility or other required equipment fails to meet its performance requirements in accordance with the standard CAT II criteria in Order 8200.1.

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(6) Standard CAT III Operations. Certify that the approach conforms to the applicable flight inspection related performance requirements stated in Chapter 7, subparagraphs 4a and 4b, and verify these standards on subsequent flight inspections. If the facility cannot continue to maintain the required performance, take action to restrict the facility, such as issuing NOTAMs, if the approach facility or other required equipment fails to meet its performance requirements in accordance with the standard CAT III criteria in Order 8200.1. Also, complete the evaluation checklist to allow assessment of runways for CAT III operations, and return the checklist to the FS assigned specialist.

5. Airports (ARP). The airport establishes markings and signs, and removes obstructions as necessary, to support CAT II and CAT III operations. The airport will amend the airport layout plan when necessary. The airport installs the required equipment to provide 1-second backup power to runway lighting systems. If necessary, due to equipment limitations, the airport provides visual monitoring for lights that do not have remote monitoring. The airport provides information to the Regional Airports Division for the completion of the evaluation checklist. The airport creates a SMGCS plan and implements an approved SMGCS operation.

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Appendix A. References (current editions)

- 1. AC 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.
- 2. AC 150/5300-13, Airport Design.
- 3. AC 150/5340-1, Standards for Airport Markings.
- 4. AC 150/5340-18, Standards for Airport Sign Systems.
- 5. AC 150/5340-30, Design and Installation Details for Airport Visual Aids.
- 6. FAA Order 6560.10, Runway Visual Range (RVR).
- 7. FAA Order 6560.29, New Generation Runway Visual Range System.
- 8. FAA Order 6750.16, Siting Criteria for Instrument Landing Systems.
- 9. FAA Order 6750.24, Instrument Landing System and Ancillary Electronic Component Configuration and Performance Requirements.
- 10. FAA Order JO 6750.57, Instrument Landing System Continuity of Service Requirements and Procedures.
- 11. FAA Order JO 6850.2, Visual Guidance Lighting Systems.
- 12. FAA Order JO 6950.2, Electrical Power Policy Implementation at National Airspace System Facilities.
 - 13. FAA Order JO 7110.65, Air Traffic Control.
- 14. FAA Order JO 7210.3, Facility Operation and Administration.
 - 15. FAA Order 8200.1, United States Standard Flight Inspection Manual.
 - 16. FAA Order 8240.47, Determination of Instrument Landing System (ILS) Glidepath Angle, Reference Datum Heights (RDH), and Achieved Reference Datum Heights (ARDH).
 - 17. FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).
 - 18. FAA Order 8260.19, Flight Procedures and Airspace.
 - 19. FAA Order 8260.43, Flight Procedures Management Program.
- 20. AFS-410 web page at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/.

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21. AFS-420 web page at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420/.

22. ICAO Annex 10, Aeronautical Telecommunications.

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Appendix B. Abbreviations and Acronyms

A/FD Airport/Facility Directory

AC Advisory Circular

ADO Airport District Office

AJV-A Aeronautical Information Services

AJW Technical Operations Services

ALSF Approach Lighting System With Sequenced Flashing Lights

AP Autopilot

ARDH Achieved Reference Datum Height

ARP Airports

ATC Air Traffic Control

ATCT Airport Traffic Control Tower

ATIS Automatic Terminal Information Service

ATO Air Traffic Organization

AVN Aviation System Standards

AWO All Weather Operations

CAT Category

CFR Code of Federal Regulations

CL Centerline

CMO Certificate Management Office

CoS Continuity of Service

CS Chart Supplement

DA Decision Altitude

DAL Dallas Love Field

DH Decision Height

DRS Dynamic Regulatory System (replaced the Flight Standards Information

Management System (FSIMS))

ELVO Expanded Low Visibility Operations

FAA Federal Aviation Administration

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FD Flight Director

FGS Flight Guidance System

FPO Flight Procedures Office

FS Flight Standards Service

FSDO Flight Standards District Office

GBAS Ground Based Augmentation System

GLS GBAS Landing System

GP Glide Path

GS Glideslope

HAT Height Above Touchdown

HIRL High Intensity Runway Lights

HUD Head-Up Display

IAP Instrument Approach Procedure

ICAO International Civil Aviation Organization

IFP Instrument Flight Procedures

ILS Instrument Landing System

IM Inner Marker

LOA Letter of Authorization

LOC Localizer

LPV Localizer Performance with Vertical Guidance

LVO Low-Visibility Operations

MALSR Medium Intensity Approach Lighting System with Runway Alignment

Indicator Lights

MAS Missed Approach Segment

MM Middle Marker

MSpec Management Specification

MTBO Mean Time Between Outages

NAS National Airspace System

NAVAID Navigational Aid

NCP NAS Change Proposal

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NFPO National Flight Procedures Office

NOTAM Notice to Air Missions

OFZ Obstacle Free Zone

OM Outer Marker

OpSpec Operations Specification

RA Radio Altimeter

RA NA Radar Altimeter Minimums Not Authorized

RCL Runway Centerline

RDH Reference Datum Height

RGL Runway Guard Light

RVR Runway Visual Range

SA Special Authorization

SIAP Standard Instrument Approach Procedure

SMGCS Surface Movement Guidance and Control System

SSALR Simplified Short Approach Lighting System with Runway Alignment

Indicator Lights

TCH Threshold Crossing Height

TDZ Touchdown Zone

TERPS Terminal Instrument Procedures

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Appendix C. Sample Checklists for Evaluating Ground Facilities for SA CAT II Operations

The basis of approval for airports having instrument landing system (ILS) ground facilities for Special Authorization (SA) Category (CAT) II operations is contained in the following checklists.

The assigned Flight Technologies and Procedures Division (AFS-400) representative will coordinate the checklists. Sample checklists for Technical Operations Services (AJW), Air Traffic Services (AJT), Airports (ARP), and Flight Program Operations (AJF-0) are provided.

Evaluation of the ILS Type equipment for Runway at				
AIRPORT to determine its cap	CITY ability to provide CAT	II approach and landing	STATE minimums.	
Date requested:				
Requested by:				
Airport Manager's co	oncurrence obtained:		□Yes □No	
CAT II minimum:	DH	НАТ	RVR	
Procedure was coord	inated with the IFP Valid	ation Team:	□Yes □No	
All checklists are sig	ned and all discrepancies	have been resolved:	□Yes □No	
CAT II flight inspect	ion completed satisfactor	ily:	□Yes □No	
CAT II minimum:	DH	НАТ	RVR	
Comments:				
Target dates for attainment of Continuity of Service (CoS) and 14 CFR part 97 publication:				
CAT II CoS: Target Publication Date:			Date:	
Assigned AFS-400	Member (Print) Sig	nature	Date	

COORDINATION WITH THE FOLLOWING OFFICES:

	DA		
OFFICE	PROVIDED	RETURNED	OK?
Technical Operations Services (AJW):			
Discrepancies/Comments:			
Resolution:			
Air Traffic Services (AJT):			
Discrepancies/Comments:			
Resolution:			
Airports (ARP):			
Discrepancies/Comments:			
Resolution:			

Technical Operation	s (ATO AJW)	Checklist for SA CAT II O	perations
Runway: Airport:		City:	State:
This checklist is to verify that the to provide Class II/D/2 performa operations.			
CAT II RVR 1600 (II/D/2):	□Yes □No	CAT II RVR 1200 (II/D/2):	□Yes □No
Confirm that all ground system r Approach Operations, applicable achieved/completed status, not p in progress at the discretion of th are complete, please return the cl to preclude delay of CAT II serv Service (FS) will issue authoriza I. General Information. Imme assigned AFS-400 member (liste CAT II/III coordinator for monit	e to AJW are me blanned actions. In assigned AFS hecklist expeditivice to the users. It in for CAT II ediately upon intended below) with the	et. Completion of this checklist. The checklist can be complet 5-400 member. When all porticiously to the assigned AFS-40 Once approval is granted, the operations. itiation of this checklist, please the name and telephone numb	st should reflect ted with items still ions of this checklist 00 member in order e Flight Standards
AFS-400 Member:		Phone Number:	
Alternate:		Phone Number:	
Please set monito II. General Data.	or alarms to CA	AT II tolerances and initiate	CoS.
A. Facility ID:			
B. Glideslope (GS) Angle:			
C. Published Threshold Cross			
This checklist should reflect curre would affect potential CAT II-III CAT II-III operations:	ent equipment. De	escribe any known deficiencies i	
III. ILS Systems. (Refer to AC	120-118 and On	rder 6750.24.)	
A. Localizer (LOC) and GS e capture-effect, etc.)	equipment and arr	ray type (e.g., Mark 20 and 14 e	lement,
(1) LOC/array type:			
(2) GS equipment type:			
		d):	

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В.	B. Facility is certified for and capable of maintaining a performance classification of at least Class II/D/2 (Refer to Order 6750.24) □Yes □No				
	CAT II Monito	r Start Date:	CAT II F	light Inspection Date:	
	Estimated CoS Start Date: Es		Estimated	d CoS Completion Date:	
	Commencement/Completion of CoS burn-in is not a prerequisite for checklist signature. If procedure charts prior to CoS requirements being met, a Notice to Air Missions (NOTAM) must be published to N/A the procedure until burn-in is complete.				
C.	C. Remote Status Monitors (LOC/GS) (Refer to Order 6750.16) □Yes □No				
	Location(s):	LOC:		GS:	
D.	Marker Beacon	s: (Refer to Order 6750.16)			
	(1) Outer Marl	ker (OM) installed (not requi	red):	□Yes □No	
	(2) Middle Ma	arker (MM) installed (not req	uired):	□Yes □No	
	(3) Inner Mark	xer (IM) installed (for "RA N	A" operation	ons): □Yes □No	
E.	E. Approach Light System (MALSR, SSALR, or ALSF-1/2; Refer to Order JO 6850.2) installed: □Yes □No				
	(1) Monitored (Refer to Order 6750.24):				
	(2) Green threshold bar installed: □Yes □No				
	(3) Approach light system mounted on frangible fixtures: □Yes □No				
Submit Approach Light System Plan and Profile as-built drawings to the assigned AFS-400 member for forwarding to Aeronautical Information Services (AJV-A) if applicable to the project.					
F.	The LOC and C	GS critical areas are adequate	to support	CAT II/III operations: □Yes □No	
	(1) Are the LOC and GS critical areas standard (Refer to Order 6750.16)? □Yes □No				
	(2) If critical ar	eas are nonstandard, provide	a description	on and attach critical area drawings:	
that w		ntial CAT II-III operations ar		known deficiencies in this equipment ned equipment changes necessary for	

IV. Runway Visual Range (RVR) Equipment. RVR 1600, one sensor required; RVR 1200, two sensors required; runway exceeding 8000 feet and RVR below 1600 requires midpoint RVR in addition to touchdown zone (TDZ) and rollout; CAT III operations, three sensors required.

A.	Installadia accordance with Onder (500.)			
	installed in accordance with Order 6360.2	29:	□Yes	□No
B.	Type equipment (Make/Model):			
	(1) Touchdown installed:		□Yes	□No
	(2) Midpoint installed:		□Yes	□No
	(3) Rollout installed:		□Yes	□No
	(4) Far-End installed (not required):		□Yes	□No
would	necklist should reflect current equipment. I affect potential CAT II-III operations and I-III operations:			
	etrical Power Requirements. Indicate als for backup power and power transferd.)	C 1		
A.	LOC	□Yes □No		
B.				
C.	GS	□Yes □No		
	OM	□Yes □No □Yes □No □NA		
D.				
	OM	□Yes □No □NA		
E.	OM	□Yes □No □NA □Yes □No □NA		
E. F.	OM	□Yes □No □NA □Yes □No □NA □Yes □No		
E. F. G.	OM	□Yes □No □NA □Yes □No □NA □Yes □No		
E. F. G.	OM	□Yes □No □NA □Yes □No □NA □Yes □No □NA □Yes □No □NA □Yes □No □NA		

VI. Siting Standards. Confirm the following Navigational Aids (NAVAID) meet siting standards (Refer to Order 6750.16): LOC Antenna: GS Mast/Antenna: □Yes □No □Yes □No This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations: VII. **Additional Information:** A. List all approved and pending National Airspace System (NAS) Change Proposals (NCP) applicable to the facilities in this checklist (ILS, approach lights, RVR, etc.): B. Indicate the AJW Systems Support Center and hours of coverage for qualified technicians on duty at the airport for this system: **Category II/III Coordinator (Print) Signature** Date Manager or Authorized **Signature** Date

Operations Engineering Group (Print)

Representative, Service Area

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	Air Traffic Services (AT	TO AJT) C	hecklist for SA C	CAT II Operations
Runway: _	Airport:		City:	State:
	list is to verify that the equation the proposed CAT II approx	-	•	above meets the requirements
CAT II RY	VR 1600: □Y	es □No	CAT II RVR 120	0: □Yes □No
checklist comember. We expeditious the users. Comera assigned A	an be completed with item When all portions of this ch	s still in proceedist are of member in S will issued by upon in the low) with the still in the s	ogress at the discretomplete, please rain order to preclude authorization for itiation of this che he name and telephone	le delay of CAT II service to CAT II operations. cklist, please provide the hone number of your staff
AFS-400	Member:		Phone Number:	
Alternate:		_	Phone Number:	
A. Let (i.e (Pl	klist should reflect current eq ect potential CAT II operation	d with the apict Office, FS	ppropriate offices S, and Airport Auth	
	tor Capability and Coord	`		<u> </u>
A. Ve	rify that monitoring capabilit	y exists in th	ne Airport Traffic C	ontrol Tower (ATCT) for:
(1) Localizer (LOC):			□Yes □No
(2	2) Glideslope (GS):			□Yes □No
(3) Inner Marker (IM) (for RA	NA operation	ons):	□Yes □No □NA
	rangements exist for airport p nway lighting system does no			

	toring system installed in the ATCT for the	
approach light system:		···· □Yes □No
	quipment. Describe any known deficienc rations and any planned equipment chang	
IV. Power Transfer. (Refer to Orde	er 6750.24):	
A. Arrangements exist to start eng	gine generators for:	
(1) RVR:		□Yes □No □NA
(2) Runway Lights (check all	that apply):	□HIRL □TDZ □RCL □None
(3) Approach light system and	d power vault (if ALSF installed):	□Yes □No
V. Communications.	1 Constant Program and H.C.	
Critical Areas (Refer to AC 12	d Ground Vehicles on Runway and ILS 20-118, AC 150/5340-1, and	□Yes □No
B. Indicate how facility outages a Orders JO 7110.65 and JO 721	and airport conditions (Refer to 0.3) are reported (ATIS, NOTAM, etc.)	
	quipment. Describe any known deficienc rations and any planned equipment chang	
Facility Air Traffic Manager or Authorized Representative (Print)	Signature	Date

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Airports Division (ARP) Checklist for Special Authorization CAT II Operations Runway: ____ Airport: ____ City: ____ State: ____ This checklist is to verify that the equipment for the runway listed above meets the requirements to support the proposed CAT II approach and landing operations. **CAT II RVR 1600:** □Yes □No CAT II RVR 1200: □Yes □No Confirm that all ground systems and obstacle clearance requirements are met. Completion of this checklist should reflect achieved/completed status, not planned actions. The checklist can be completed with items still in progress at the discretion of the assigned AFS-400 member. When all portions of this checklist are complete, please return the checklist expeditiously to the assigned AFS-400 member in order to preclude delay of CAT II service to the users. Once approval is granted, FS will issue authorization for CAT II operations. I. General Information. Immediately upon initiation of this checklist, please provide the assigned AFS-400 member (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of the checklist. Phone Number: AFS-400 Member: _____ Phone Number: Alternate: II. Lighting Aids. Indicate if the following visual aids meet installation standards. If a modification to an airport design standard was approved, list each approval in section VII. (Refer to AC 150/5340-30 and Order JO 6850.2) B. Threshold/Runway End Lights (in addition to threshold lights, which E. Approach Lights (MALSR, SSALR, or ALSF-1/2) (if non-Federal):.... □Yes □No □NA This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations:

III. Monitoring of Lighting Aids. (Refer to Order 6750.24.)

		<u> </u>	
A.	Arrangements for airport personnel to runway lighting system does not meet		□Yes □No
В.	Specify the organization responsible for components. Enter "none" if not install		aspection of lighting
	Component	Remote Monitor	Visual Inspection
	(1) Runway Edge Lights:		
	(2) RCL Lights:		
	(3) Runway TDZ Lights:		
	(4) Approach Lights (if non-Federal):		
would	thecklist should reflect current equipment affect potential CAT II-III operations and II-III operations:		
	orface Markings and Signs Installe 5750.16, and Order JO 7110.65)	ed. (Refer to AC 150/5340-1, A	AC 150/5340-18,
A.	Precision Instrument Runway Marking	gs:	□Yes □No
В.	Runway Holding Position Markings ar	nd Signs:	□Yes □No
C.	CAT II ILS Critical Areas Identified. I Position Markings and Signs:		□Yes □No
would	hecklist should reflect current equipment affect potential CAT II-III operations and II-III operations:		

V. Obstacle Clearance. Certification may be obtained from the airport sponsor. A. Is the CAT II Obstacle Free Zone (OFZ) clear of obstructions? □Yes □No B. If no, describe any obstacles that penetrate the CAT II OFZ: C. Approach Light Area: (2) If light plane is not clear, describe any penetrations: This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations: VI. Electrical Power Requirements. (Refer to Order 6950.2 and AC 150/5340-30) Verify that the following components, if installed, meet the requirement for 1-second power transfer: A. Threshold and Runway Edge Lights: □Yes □No B. RCL Lights: □Yes □No □NA D. Approach Lights (if non-Federal): □Yes □No □NA This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations:

	all approved and planned modific runway and equipment, including	cations to airport national design g those related to facility frangibility:
Manager or Authorized Representative, ADO (Print)	Signature	Date
Manager or Authorized Representative, Airports Division (Print)	Signature	Date

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Flight Check (AVN) ILS SA CAT I/II Checklist

The designated ILS system has been selected for use to higher standards than a standard CAT I system. The attached checklist is designed to provide the appropriate organizations with the necessary information that will allow them to determine whether to grant or deny this higher service. We must confirm that all ground system and obstacle clearance requirements contained in FAA Order 8400.13 are met.

The following blocks are graduated into increasing degrees of higher standards. All blocks previous to the requested standard must be completed.

- Block I, General Data.
- Block II, Special Authorization CAT I Operations (latest version of FAA Order 8400.13, Chapter 3).
- Block III, Special Authorization CAT II Operations (latest version of FAA Order 8400.13, Chapter 5).
- Block IV, CAT II Tolerances Met (latest version of FAA Order 8200.1, Chapter 15).
- Block V, CAT III Tolerances Met (latest version of FAA Order 8200.1, Chapter 15).

Completion of this checklist should reflect achieved/completed status—not planned actions. The checklist can be completed with items still in progress at the discretion of the assigned AFS-400 member. When all portions of this checklist are complete, the checklist will be forwarded to the appropriate FS manager via the Aircraft System Standards (AVN) to preclude the delay of the requested service to the users.

Please provide the following information.

I.	General Data	
A	Location:	
В	Airport:	
С	Runway Number:	
D	Facility ID:	
Е	Runway Length (ft.) / Width (ft.):	/
F	Runway Gradient % +/-:	
G	Runway Surface Type:	
Н	Runway Grooving:	
I	Glideslope (GS) Angle (degrees):	
J	Requested Standard (II thru V):	

II.	Special Authorization CAT I Operations	
A	Localizer (LOC) #1 Performance Classification:	
В	Radio Altimeter (RA) Setting Height:	
С	GS Clearance Below Path:	□Sat □Unsat
D	Missed Approach:	□Sat □Unsat
Е	MALSR or Better:	□Yes □No

III.	Special Authorization CAT II Operations	
Α	LOC #1 (CAT II/D Minimum):	
В	LOC Performance Classification:	
С	GS #1 (CAT II Criteria):	
D	RA Setting Height:	
Е	RDH Crossing Height:	
F	ARDH Crossing Height:	
G	CAT II ILS SIAP:	□Yes □No
Н	Missed Approach:	□Sat □Unsat
I	MALSR or Better:	□Yes □No

Note: If dual transmitter, complete section IV, rows A & B below.

IV.	CAT II Tolerances Met	
A	LOC #2 (CAT II/D Minimum):	
В	GS #2 (CAT II Criteria):	
С	ALSF-2 Lights:	□Yes □No

V.	CAT III Tolerances Met	
Α	LOC #1 (CAT III/D or III/E Minimum):	□III/D □III/E
В	LOC #2 (CAT III/D or III/E Minimum):	□III/D □III/E
С	CAT III SIAP:	□Yes □No

Remarks:

POSITION	DATE	SIGNATURE
Chief of Flight Inspection Activity		
Operations ILS Category Coordinator		

Appendix D. Sample Checklists for Evaluating Ground Facilities for CAT II and CAT III Operations

The basis of approval for airports having instrument landing system (ILS) ground facilities for Category (CAT) II and CAT III operations is contained in the following checklists.

The assigned Flight Technologies and Procedures Division (AFS-400) representative will coordinate the checklists. Sample checklists for Technical Operations Services (AJW), Air Traffic Services (AJT), Airports (ARP), and Flight Program Operations (AJF-0) are provided.

Evaluation of the ILS Type equipment for Runway at						
AIRPORT CITY STATE to determine its capability to provide CAT II and/or CAT III approach and landing minimums.						
Date requested:						
Requested by:						
Airport Manager's co	oncurrence obtained:		□Yes □No			
Procedure was coord	inated with the IFP Valid	ation Team:	□Yes □No			
All checklists are sig	ned and all discrepancies	have been resolved:	□Yes □No			
CAT II/III flight insp	pection completed satisfac	ctorily:	□Yes □No			
CAT II minimum:	DH	НАТ	RVR			
Approved for RVR 1	000 autoland or HUD mi	nimums?	□Yes □No			
CAT III minimum:	DH	RVR				
Comments:						
Target dates for attai	nment of Continuity of So	ervice (CoS) and 14 CFR p	art 97 publication:			
CAT II CoS: Target Publication Date:						
CAT III CoS: Target Publication Date:						
Assigned AFS-400 Member (Print) Signature Date						

COORDINATION WITH THE FOLLOWING OFFICES:

	DA				
OFFICE	PROVIDED	RETURNED	OK?		
Technical Operations Services (AJW):					
Discrepancies/Comments:					
Resolution:					
Air Traffic Services (AJT):					
Discrepancies/Comments:					
Resolution:					
Airports (ARP):					
Discrepancies/Comments:					
Resolution:					
AVIATION SYSTEM STANI	DARDS:				
Flight Program Operations (AJF-0):					
Discrepancies/Comments:					
Resolution:					
Aircraft Operations (AJF-1000):					
Discrepancies/Comments:					
Resolution:					

Technical Operation	ıs (ATO AJW)	Checklist for CAT II/III Op	erations		
Runway: Airport:	C	ity: S	State:		
This checklist is to verify that the equipment for the runway listed above meets the requirements to provide the required performance in support of the proposed CAT II/III approach and landing operations.					
CAT II RVR 1600 (II/D/2):	□Yes □No	CAT III RVR 700 (III/D/3):	□Yes □No		
CAT II RVR 1200 (II/D/2):	□Yes □No	CAT III RVR 600 (III/E/3)	□Yes □No		
CAT II RVR 1000 (II/D/2):	□Yes □No	CAT III RVR 300 (III/E/4)	□Yes □No		
Confirm that all ground system requirements in Order 8400.13 applicable to AJW are met. Completion of this checklist should reflect achieved/completed status, not planned actions. The checklist can be completed with items still in progress at the discretion of the assigned AFS-400 member. When all portions of this checklist are complete, please return the checklist expeditiously to the assigned AFS-400 member in order to preclude delay of CAT II/III service to the users. Once approval is granted, the Flight Standards Service (FS) will issue authorization for CAT II/III operations. I. General Information. Immediately upon initiation of this checklist, please provide the assigned AFS-400 member (listed below) with the name and telephone number of your CAT II/III coordinator for monitoring the accomplishment of your checklist.					
AFS-400 Member: Phone Number:					
Alternate:		Phone Number:			
Please set monito	or alarms to CA	T II tolerances and initiate	CoS.		
A. Facility ID:					
	B. Glideslope (GS) Angle: degrees.				
C. Published Threshold Crossing Height (TCH): feet.					
This checklist should reflect curre would affect potential CAT II-III CAT II-III operations:					

III. ILS Systems. (Refer to AC 120-118 and Order 6750.24.)

A.	Localizer (LOC) and GS equipment and ar capture-effect, etc.)	ray type (e.g., N	Aark 20 and 14	element,	
	(1) LOC/array type:				
	(2) GS equipment type:				
	(3) Far Field Monitor installed:			□Yes	□No
В.	Facility is certified for and capable of mair required performance classification (Refer Order 6750.24)	to	□II/D/2 □III/E/3	□III/D/3 □III/E/4	□No
	(1) Facility certified and maintained to CA			□CAT III	□No
	CAT II/III Monitor Start Date:	CAT II/III F1	ight Inspection	Date:	
	Estimated CoS Start Date:	Estimated Co	S Completion	Date:	
	Commencement/Completion of CoS burn-i rocedure charts prior to CoS requirement must be published to N/A the pr	ts being met, a	Notice to Air	Missions (N	
C.	Remote Status Monitors (LOC/GS) (Refer	to Order 6750.1	16)	\(\superstack Yes	□No
Locat	ion(s): LOC:		SS:	_	
D.	Marker Beacons: (Refer to Order 6750.16)				
	(1) Outer Marker (OM) installed (not requi	ired):		\(\sum Yes	□No
	(2) Middle Marker (MM) installed (not req	uired):		□Yes	□No
	(3) Inner Marker (IM) installed (for "RA N	IA" CAT II ope	rations):	□Yes	□No
E.	Approach Light System (Refer to Order JC	6850.2) install	ed:	□Yes	□No
	(1) Monitored (Refer to Order 6750.24)?			□Yes	□No
	bmit Approach Light System Plan and Preer for forwarding to Aeronautical Informa				
F.	The LOC and GS critical areas are adequate	e to support CA	T II/III operation	ons: □Yes	□No
	(1) Are the LOC and GS critical areas stand	dard (Refer to C	Order 6750.16)	? □Yes	□No
(2) If critical areas are nonstandard, provide a description and attach critical area drawings:					
would	checklist should reflect current equipment. D d affect potential CAT II-III operations and a II-III operations:				

IV. Runway Visual Range (RVR) Equipment. RVR 1600, one sensor required; RVR 1200, two sensors required; runway exceeding 8000 feet and RVR below 1600 requires midpoint RVR in addition to touchdown zone (TDZ) and rollout; CAT III operations, three sensors required. (Refer to Orders 6750.24 and 6560.10.)

A.	Installed in accordance with Order 6560.29:	□Yes	□No
В.	Type equipment (Make/Model):		
	(1) Touchdown installed:	□Yes	□No
	(2) Midpoint installed:	□Yes	□No
	(3) Rollout installed:	□Yes	□No
	(4) Far-End installed (not required):	□Yes	□No
would	checklist should reflect current equipment. Describe any known deficiencies in affect potential CAT II-III operations and any planned equipment changes need II-III operations:		
	ectrical Power Requirements. Indicate whether the following components for backup power and power transfer (Refer to Order 6950.2). (Entered.)		
A.	LOC		
В.	GS		
C.	OM		
D.	MM		
E.	IM		
F.	RVR (Touchdown)		
G.	RVR (Midpoint)		
H.	RVR (Rollout)		
I.	ALSF-1/2		
would	checklist should reflect current equipment. Describe any known deficiencies in affect potential CAT II-III operations and any planned equipment changes need II-III operations:		

VI. Siting Standards. Confirm the following Navigational Aids (NAVAID) meet siting standards (Refer to Order 6750.16): LOC Antenna: GS Mast/Antenna: □Yes □No □Yes □No This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations: VII. **Additional Information:** A. List all approved and pending National Airspace System (NAS) Change Proposals (NCP) applicable to the facilities in this checklist (ILS, approach lights, RVR, etc.): B. Indicate the AJW Systems Support Center and hours of coverage for qualified technicians on duty at the airport for this system: **Category II/III Coordinator (Print) Signature** Date Manager or Authorized **Signature** Date Representative, Service Area

Operations Engineering Group (Print)

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	Air Traffic Service	es (ATO AJT) C	hecklist for CA	T II/III Ope	erations
Runway:	Airport:	C	ity:	S	State:
	ist is to verify that the proposed CAT II	• •	•		ts the requirements
CAT II RV	R 1600 (II/D/2):	□Yes □No	CAT III RVR 7	00 (III/D/3):	□Yes □No
CAT II RV	R 1200 (II/D/2):	□Yes □No	CAT III RVR 6	00 (III/E/3):	□Yes □No
CAT II RV	R 1000 (II/D/2):	□Yes □No	CAT III RVR 3	00 (III/E/4):	□Yes □No
member. Wheepeditiously to the users. I. General assigned AF	n be completed with hen all portions of the ly to the assigned Al Once approval is go I Information. Imm FS-400 member (list of contact for mo	nis checklist are of FS-400 member is ranted, FS will is ediately upon inited below) with the	complete, please in order to precl sue authorizatio tiation of this cl ne name and tele	e return the chude delay of on for CAT II/necklist, pleasephone number	CAT II/III service III operations. se provide the er of your staff
AFS-400 M	lember:		Phone Number		
Alternate:		Phone Number			
A. Lette	er of Agreement coordy, ARP Division/Distractions attach copy:	linated with the ap	ppropriate offices Airport Authori	(i.e.,	Yes □No
This checkl	list should reflect curr et potential CAT II-III	ent equipment. De	scribe any knowr	deficiencies in	n this equipment that
III. Monito	or Capability and C	Coordination. (R	efer to Order 67	['] 50.24):	
A. Veri	fy that monitoring cap	pability exists in the	ne Airport Traffic	Control Towe	r (ATCT) for:
(1) I	Localizer (LOC):			□Yes □No)
(2) (Glideslope (GS):			☐Yes ☐No)
(3) I	nner Marker (IM) (for	RA NA operation	ns):	. □Yes □No	NA □

В.	Is an approved electrical monitoring system installed in the ATCT for the runway light system?						
C.	Is an approved electrical monitoring system installed in the ATCT for the approach light system? Yes No						
would	This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations:						
IV. Po	wer Transfer. (Refer to Order 6750.24):						
A.	Arrangements exist to start engine generators for:						
	(1) RVR: \Box Yes \Box No \Box NA						
	(2) Runway Lights (check all that apply):						
	(3) Approach light system and power vault (if ALSF installed): \Box Yes \Box No						
would	checklist should reflect current equipment. Describe any known deficiencies in this equipment that daffect potential CAT II-III operations and any planned equipment changes necessary for II-III operations:						

V. Communications.

A. Positive Control of Aircraft an Areas (Refer to AC 120-118, A		ay and ILS Critical ○ 7110.65) □Yes □No
B. Indicate how facility outages a Orders JO 7110.65 and JO 721		
This checklist should reflect current e would affect potential CAT II-III ope CAT II-III operations:		* *
Facility Air Traffic Manager or Authorized Representative (Print)	Signature	Date

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	Airports Division	on (ARP) Checl	klist for CAT II/III (Operatio	ns	
Runway:	Airport:	C i	ity:	St	ate:	
This checklist is to verify that the equipment for the runway listed above meets the requirements to support the proposed CAT II/III approach and landing operations.						
CAT II RVI	R 1600 (II/D/2):	□Yes □No	CAT III RVR 700 (III	I/D/3):	□Yes □No	
CAT II RVI	R 1200 (II/D/2):	□Yes □No	CAT III RVR 600 (III	I/E/3):	□Yes □No	
CAT II RVI	R 1000 (II/D/2):	□Yes □No	CAT III RVR 300 (III	I/E/4):	□Yes □No	
completed wall portions of assigned AF approval is g I. General assigned AF	checklist should reflect achieved/completed status, not planned actions. The checklist can be completed with items still in progress at the discretion of the assigned AFS-400 member. When all portions of this checklist are complete, please return the checklist expeditiously to the assigned AFS-400 member in order to preclude delay of CAT II/III service to the users. Once approval is granted, FS will issue authorization for CAT II/III operations. I. General Information. Immediately upon initiation of this checklist, please provide the assigned AFS-400 member (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of the checklist.					
AFS-400 M	lember:		Phone Number:			
			Phone Number:			
modification		standard was ap	al aids meet installation proved, list each app			
A. High	ı Intensity Runway Ed	ge Lights:		🗆 Ү ө	es 🗆 No	
B. Thre are in	B. Threshold/Runway End Lights (in addition to threshold lights, which are integral to the approach light system): □Yes □No					
C. Runy	way Centerline (RCL)	Lights:		ПҮс	es □No	
D. Runy	way Touchdown Zone	(TDZ) Lights:		ПҮс	es □No	
E. ALS	F-2 Approach Lights ((if non-Federal): .		ПҮс	es □No	
and Co		S) plan and taxi cl	include a copy of the Spart with details of all red.			

would	hecklist should reflect current equipment. Describe any known deficienc affect potential CAT II-III operations and any planned equipment chang II-III operations:			
III. M	onitoring of Lighting Aids. (Refer to Order 6750.24.)			
A.	Arrangements for airport personnel to advise ATCT whenever the runway lighting system does not meet CAT II/III requirements:	□Yes	□No	
В.	Specify the organization responsible for remote monitoring and visual in components. Enter "none" if not installed:	nspectio	on of ligl	hting
	Component Remote Monitor	Visual	Inspecti	on
	(1) Runway Edge Lights:			
	(2) RCL Lights:			
	(3) Runway TDZ Lights:			
	(4) Approach Lights (if non-Federal):			
would	hecklist should reflect current equipment. Describe any known deficience affect potential CAT II-III operations and any planned equipment chang II-III operations:			
	rface Markings and Signs Installed. (Refer to AC 150/5340-1, A O 7110.65, and Order 6750.16)	C 150/	/5340-1	8,
A.	Precision Instrument Runway Markings:		□Yes	□No
B.	Runway Holding Position Markings and Signs:		□Yes	□No
C.	CAT II/III ILS Critical Areas Identified. ILS Critical Area Holding Post Markings and Signs:		□Yes	□No
would	hecklist should reflect current equipment. Describe any known deficienc affect potential CAT II-III operations and any planned equipment chang I-III operations:			

V. Obstacle Clearance. Certification may be obtained from the airport sponsor. A. Is the CAT II/III Obstacle Free Zone (OFZ) clear of obstructions? □Yes □No B. If no, describe any obstacles that penetrate the CAT II/III OFZ: C. Approach Light Area: (1) Approach light plane clear: \(\square\) Yes \(\square\) No (2) If light plane is not clear, describe any penetrations: This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations: VI. Electrical Power Requirements. (Refer to Order 6950.2.) Verify that the following components, if installed, meet the requirement for 1-second power transfer: A. Threshold and Runway Edge Lights: □Yes □No D. Approach Lights (if non-Federal): □Yes □No This checklist should reflect current equipment. Describe any known deficiencies in this equipment that would affect potential CAT II-III operations and any planned equipment changes necessary for CAT II-III operations:

VII. National Standards. List all approved and planned modifications to airport national design standards regarding the proposed runway and equipment, including those related to facility frangibility:				
Manager or Authorized Representative, ADO (Print)	Signature	Date		
Manager or Authorized Representative,	Signature	Date		
Airports Division (Print)				

8/18/22 8400.13F Appendix D

Flight Check (AVN) ILS CAT Checklist

The designated ILS system has been selected for use to higher standards than a standard CAT I system. The attached checklist is designed to provide the appropriate organizations with the necessary information that will allow them to determine whether to grant or deny this higher service. We must confirm that all ground system and obstacle clearance requirements contained in FAA Order 8400.13 are met.

The following blocks are graduated into increasing degrees of higher standards. All blocks previous to the requested standard must be completed.

- Block I, General Data.
- Block II, Special Authorization CAT I Operations (latest version of FAA Order 8400.13, Chapter 3).
- Block III, Special Authorization CAT II Operations (latest version of FAA Order 8400.13, Chapter 5).
- Block IV, CAT II Tolerances Met (latest version of FAA Order 8200.1, Chapter 15).
- Block V, CAT III Tolerances Met (latest version of FAA Order 8200.1, Chapter 15).

Completion of this checklist should reflect achieved/completed status—not planned actions. The checklist can be completed with items still in progress at the discretion of the assigned AFS-400 member. When all portions of this checklist are complete, the checklist will be forwarded to the appropriate FS manager via the Aircraft System Standard (AVN) to preclude the delay of the requested service to the users.

Please provide the following information.

I.	General Data	
A	Location:	
В	Airport:	
С	Runway Number:	
D	Facility ID:	
Е	Runway Length (ft.) / Width (ft.):	/
F	Runway Gradient % +/-:	
G	Runway Surface Type:	
Н	Runway Grooving:	
I	Glideslope (GS) Angle (degrees):	
J	Requested Standard (II thru V):	

II.	Special Authorization CAT I Operations	
Α	Localizer (LOC) #1 Performance Classification:	
В	Radio Altimeter (RA) Setting Height:	
С	GS Clearance Below Path:	□Sat □Unsat
D	Missed Approach:	□Sat □Unsat
Е	MALSR or Better:	□Yes □No

III.	Special Authorization CAT II Operations	
A	LOC #1 (CAT II/D Minimum):	
В	LOC Performance Classification:	
С	GS #1 (CAT II Criteria):	
D	RA Setting Height:	
Е	RDH Crossing Height:	
F	ARDH Crossing Height:	
G	CAT II ILS SIAP:	□Yes □No
Н	Missed Approach:	□Sat □Unsat
I	MALSR or Better:	□Yes □No

Note: If dual transmitter, complete section IV, rows A & B below.

IV.	CAT II Tolerances Met	
A	LOC #2 (CAT II/D Minimum):	
В	GS #2 (CAT II Criteria):	
С	ALSF-2 Lights:	□Yes □No

V.	CAT III Tolerances Met	
A	LOC #1 (CAT III/D or III/E Minimum):	□III/D □III/E
В	LOC #2 (CAT III/D or III/E Minimum):	□III/D □III/E
С	CAT III SIAP:	□Yes □No

Remarks:

POSITION	DATE	SIGNATURE
Chief of Flight Inspection Activity		
Operations ILS Category Coordinator		

8/18/22 8400.13F CHG 1 Appendix E

Appendix E. Sample Sponsor Letter

The sponsor letter is a request for a new procedure and an acknowledgement of the responsibilities and possible costs that an airfield may incur with a new approach procedure. This letter can be signed by any management member of authority at the airfield such as the Airfield Manager, Department of Aviation or Airport Authority. The letter can take any form that the requesting party prefers for correspondence, but needs to note that they understand the airport may be responsible for costs such as signage, airfield lighting, obstacle removal, assigning personnel, etc.

For the assigned Flight Standards Technician, the sponsor letter is needed before the IFP Gateway Request is sent.

The IFP Gateway request can be found at https://www.faa.gov/air_traffic/flight_info/aeronav/pro cedures/.

FAA Regional Office Hillwood Parkway Regional Office Fort Worth, Texas 76177

AITN: Ben Fold

RE: Letter of Concurrence, Expanded Low Visibility Operations (ELVO) Program Dallas Love Field (DAL) Runways 131- and 31 R — Special Authorization (SA) CAT II Feasibility

Dear Mr. Fold:

As per our briefing on May 17, 2021 by the FAA Navigation Programs Office regarding Special Authorization (SA) Category (CAT) II approaches, please accept this letter of concurrence on behalf of the Department of Aviation, Dallas Love Field (DAL).

The Department of Aviation is in full support of this effort and will commit to provide any necessary resource to comply with the airport's responsibilities as part of this project. We understand that this may include costs that are incurred and paid for by the airport in order for the procedure to be published.

Thank you,

David N. David DAL Department of Aviation

Directive Feedback Information

Please submit any written comments or recommendation for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: FAA Order 8400.13F CHG 1, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations

To: Flight Standards Directive Management Officer, AFB-120 Directives Mailbox (9-AWA-AFB-120-Directives@faa.gov)

(Please check all appropriate line items) An error (procedural or typographical) has been noted in paragraph page				
Recommend paragraph follows: (attach separate sheet if neces				
In a future change to this order, please (briefly describe what you want added)				
Other comments:				
I would like to discuss the above. Pleas	se contact me.			
Submitted by:	Date:			
Telephone Number:	Routing Symbol:			

FAA Form 1320-19 (10-98)