

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

ORDER 8400.13E

Effective Date: 5/15/18

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 authorization of Category I (CAT I) operations to Runway Visual Range (RVR) 1800, including Global Navigation Satellite System (GNSS) Landing System; Special Authorization (SA) CAT I to RVR 1400; Localizer (LOC) performance with vertical guidance (LPV) approaches with a decision height (DH) of 200 feet and visibility minimums of RVR 1800; and all Category II (CAT II) and Category III (CAT III) operations (including SA CAT II).

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)).

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John S. Duncan Executive Director, Flight Standards Service

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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 I (CAT I) approaches and Category II (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 Category III (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 RVR minimum of 1800 feet and a decision altitude (DA) of 200 feet, and CAT I approaches using a RVR minimum as low as 1400 feet and a radar altimeter 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 a 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 LPV approaches and 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 a 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. Inspectors can access this order through the Flight Standards Information Management System (FSIMS) at http://fsims.avs.faa.gov. Air carriers (operators) can find this order on the FAA website at http://fsims.faa.gov. This order is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. What This Order Cancels. This order cancels Order 8400.13D, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, dated October 22, 2009.

5. Explanation of Changes. This revision incorporates and updates the requirements for the approval of ground facilities supporting SA CAT I operations, SA CAT II operations, and standard CAT II and III operations. This revision authorizes LPV and GLS approaches with a DH of 200 feet and visibility minimums of RVR 1800. This revision also changes the criteria for evaluating the missed approach surface for SA CAT I operations. The checklists contained in the appendices have been updated to cover all CAT II and III approvals and to clarify information. For a list of approved, CAT II and III approaches at foreign airports and CAT II and III restricted/nonstandard approaches approved by this order, see the FAA website at: https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/.

6. 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, Volume I, 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 Category (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 Localizer (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 Category 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 Technical Operations (TechOps), 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 localizer 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, 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 (High Intensity Runway Lights (HIRL), TDZ lights, and RCL lights), a 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.

7. Distribution. This order is distributed to all Flight Standards divisions, branches, and offices. This order is distributed electronically only.

8. Directive Feedback Information. Direct questions or comments to the Flight Technologies and Procedures Division at 202-267-8806. 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.

Chapter 2. CAT I 1800 RVR 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.

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 Title 14 of the Code of Federal Regulations (14 CFR) Part 97, Standard Instrument Approach Procedure (SIAP). If the facility/approach has restrictions, it must be approved by AFS-400 in coordination with the Technical Operations Aviation System Standards (AJW-3) 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 2400 RVR.

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) Any existing part 97 CAT I SIAP which did not qualify for 1800 RVR due to the absence of TDZ and RCL lighting can be amended to include 1800 RVR visibility. When the straight-in ILS, GLS or LPV minimum is approved for 1800 RVR, include the following in the notes section of FAA Form 8260-3, Instrument Approach Procedure FAR Part: "Chart Note: RVR 1800 Authorized with use of FD or AP or HUD to DA" referenced to the straight-in approach minimum.

(3) 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 1800 RVR. When 1800 RVR operations are authorized it will be documented on the applicable FAA Form 8260-3. 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 Airmen (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. Special Authorization (SA) CAT I Approach Operations

1. Scope. This order authorizes CAT I approaches with a DH as low as 150 feet (HAT using RA minima) and a visibility minimum as low as RVR 1400 on suitable ILS equipment at runways with reduced lighting.

2. Air 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 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 AJW-3 on a case-by-case basis.

b. Runway Qualifications. Runways must have or be qualified for CAT I DA of 200 feet and 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 Flight Operations Branch.

(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 Advisory Circular (AC) 150/5300-13, Airport Design.

(4) Obstructions must not penetrate the approach light plane in accordance with FAA Order JO 6850.2, Visual Guidance Light System, 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. 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, Minimum Visibility Values, 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

(7) When the straight-in approach is approved with a DH as low as 150 and a visibility minima as low as RVR 1400, enter a separate line of minima immediately below the standard minimums on the CAT I instrument approach plate. Separate them with the heading "SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED." The new line of minima shall be published as RA minima. Include the following in the notes section of FAA Form 8260-3: "Chart Note: Requires specific OPSPEC, MSPEC, or LOA approval" referenced to the new approach minimum. If the ATCT does not provide continuous service, publish a note on the chart indicating the procedure is not authorized when the tower is closed.

4. Operational Approval.

a. Checklists. Completion of all checklists in Appendix C and D is not required. AJW-3 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 Airport 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. CAT II approaches with a DH as low as 100 feet and visibility minima as low as RVR 1200 are authorized by this order. This order addresses the ground equipment requirements necessary for approval of a CAT II approach. For information on other requirements, such as operator and airworthiness requirements, refer to AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach.

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 one-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 one-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.

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 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 FAA Flight Standards Service.

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 Flight Standards 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. The missed approach segment must meet the current TERPS CAT II/III development standard.

g. Aeronautical Information Services (AJV-5) Procedures. AJV-5 develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP. The line of minima shall be published in the standard format used for RA minima unless an RA minima is not authorized. Include the standard CAT II annotation: "Category II ILS - Special Aircrew & Aircraft Certification Required." If the ATCT does not provide

continuous service, publish a note on the chart indicating the procedure is not authorized when the tower is closed.

6. Operational Approval.

a. Standard CAT II SIAP Requests. Requests for standard CAT II SIAPs for a specific runway can be initiated by any operator or organization.

b. Checklists. Distribution and coordination of all checklists in Appendix D is the responsibility of the 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 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. Technical Operations Services (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 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., Head-Up Display (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. Special Authorization (SA) CAT II Approach Operations

1. Scope. SA CAT II approaches with a DH as low as 100 feet and visibility minima as low as RVR 1200 using aircraft autoland or HUD approved to touchdown are authorized by this order. 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 2 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 one-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, 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/Approach Facility Restrictions. If the approach or approach facility has restrictions, it must be approved by AFS-400 in coordination with AJW-3 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 low-visibility operations, 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-5 develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP. In addition to the standard CAT II annotation: "SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED," include the following in the notes section of FAA Form 8260-3: "Chart Note: Reduced Lighting: Requires specific OPSPEC, MSPEC, or LOA approval and use of Autoland or HUD to touchdown." If the ATCT does not provide continuous service, publish a note on the chart indicating the procedure is not authorized when the tower is closed.

7. Operational Approval.

a. SA CAT II SIAP Requests. Requests for SA CAT II SIAPs for a specific runway can be initiated by any operator or organization.

b. Checklists. Distribution and coordination of all checklists in Appendix C is the responsibility of the 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 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.

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 Annex 14 of the Convention on International Civil Aviation. 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.

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 minima 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-5 develops these procedures in accordance with the standard TERPS CAT II development criteria and process as a part 97 SIAP. In addition to the standard CAT II annotation: "CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED," include the following in the notes section of FAA Form 8260-3: "Chart Note: RVR 1000 authorized with specific OPSPEC, MSPEC, or LOA approval and use of autoland or HUD to touchdown." If the ATCT does not provide continuous service, publish a note on the chart indicating the procedure is not authorized when the tower is closed.

6. Operational Approval.

a. Checklists. Completion of the checklists in Appendix D is not required for runways with published CAT II minima to RVR 1200. When implementing new CAT II or CAT III minima, CAT II to RVR 1000 is an option on the checklists in Appendix D.

b. CAT II SIAP Requests. Requests for CAT II SIAPs to RVR 1000 for a specific runway can be initiated by any operator or organization.

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 appropriate A/FD.

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. CAT III approaches with minimums as low as RVR 300 without a DH are authorized by this order. This order addresses the ground equipment requirements necessary for approval of a CAT III ILS approach. For information on other requirements, such as operator and airworthiness requirements, refer to AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout.

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 one-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 one-second transfer.

d. Runways. A grooved runway.

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 chapter 4 of AC 150/5340-30 per the criteria in AC 150-57 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.

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 FAA Flight Standards Service.

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 Flight Standards 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. Missed Approach Segment. The missed approach segment must meet the current TERPS CAT II/III development standard.

g. AJV-5 Procedures. AJV-5 develops these procedures in accordance with the standard TERPS CAT III development criteria and process as a part 97 SIAP. The line of minima shall be published in the standard format used for RA minima. Include the standard CAT III annotation: "CATEGORY III APPROACH - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION

REQUIRED." If the ATCT does not provide continuous service, publish a note on the chart indicating the procedure is not authorized when the tower is closed.

6. Operational Approval.

a. Standard CAT III SIAP Requests. Requests for standard CAT III SIAPs for a specific runway can be initiated by any operator or organization.

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 500 RVR, 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. AFS-400 will assign a specialist with experience in All Weather Operations (AWO) to coordinate, distribute, and review all checklists. The AFS-400 specialist having assigned responsibility for the candidate airport will coordinate the procedure request with the IFP. For CAT I RVR 1800 and RVR 1400 candidate approaches, the specialist will review proponent documentation and confirm the facility's compliance with this order. AFS-400 ensures airport sponsor involvement (letter of concurrence) for all CAT II/III operations. AFS-400 is also responsible for the distribution, collection, and review of the CAT II/III checklists (including SA CAT II) from TechOps, Terminal Services (AJT), and Airports. 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-400 specialist may at his/her discretion modify the required items. When implementing CAT II/III minima on new or existing equipment and approaches, the assigned specialist will request that TechOps sets or resets the monitor alarm limits and begins the CoS evaluation in accordance with Order JO 6750.57. AFS-400 will review each checklist for completeness and notify AJV-5 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-400 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 TechOps, AJT, and Airports 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. The assigned specialist will notify AFS-400 whenever facilities are approved, modified, or deleted. The certificate management office (CMO)/certificate-holding district office (CHDO)/Flight Standards District Office (FSDO) evaluates proponent requests, approves training, and amends or issues OpSpecs, MSpecs, or LOA.

2. Instrument Flight Procedures Team. The IFP evaluates and sets the priority for the procedure development in accordance with FAA Order 8260.43, Flight Procedures Management Program.

3. TechOps. 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 minima 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.

4. Air Traffic Organization (ATO) Terminal Services. 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 as 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.

5. 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.

6. Aeronautical Information Services (AJV-5).

a. The National Flight Procedures Office (NFPO). Supports implementation of CAT II/III operations by participating in the IFP through the 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 procedure will be developed or amended by the NFPO in accordance with the priority established by the IFP.

b. Flight Program Operations (AJW-3). 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 AJW-3 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 AJW-3 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, completes evaluation checklist to allow assessment of runways for SA CAT I operations, and returns the checklist to the Flight Standards 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, completes the evaluation checklist to allow assessment of runways for CAT II operations, and returns the checklist to the Flight Standards 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 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, completes the evaluation checklist to allow assessment of runways for CAT II operations, and returns the checklist to the Flight Standards 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.

(6) Standard CAT III Operations. Certify that the approach conforms to the applicable flight inspection related performance requirements stated in Chapter 7, subparagraph 4a 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, completes the evaluation checklist to allow assessment of runways for CAT III operations, and returns the checklist to the Flight Standards assigned specialist.

7. Airports. The airport establishes markings and signs, and removes obstructions as necessary, to support CAT II and CAT III Operations. The airport layout plan will be amended by the airport when necessary. The airport installs the required equipment to provide one 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.

8. 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 TechOps, AJT, Airports, AJV-5, and Flight Standards 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 Flight Standards authorization. These checklists are also available on the AFS-410 website at

https://www.faa.gov/about/office_org/headquarters_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 TechOps, AJT, Airports, AJV-5, and Flight Standards 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 Flight Standards authorization. These checklists are also available on the AFS-410 website at https://www.faa.gov/about/office org/headquarters offices/avs/offices/afx/afs/afs/400/afs410/.

9. Disposition. AFS-410 establishes criteria for the procedures authorized by this order. Direct questions or comments regarding minimum reduction for operations conducted with properly equipped aircraft to AFS-410, at (202) 267-8795. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this order on FAA Form 1320-19, Directive Feedback Information, 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 follow-up to verbal conversation.

Appendix A. References (current editions)

1. AC 97-1, Runway Visual Range (RVR).

2. AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout.

3. AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach.

4. AC 150/5300-13, Airport Design.

5. AC 150/5340-1, Standards for Airport Markings.

6. AC 150/5340-18, Standards for Airport Sign Systems.

7. AC 150/5340-30, Design and Installation Details for Airport Visual Aids.

8. FAA Order 6560.10, Runway Visual Range (RVR).

9. FAA Order 6560.29, New Generation Runway Visual Range System.

10. FAA Order 6750.16, Siting Criteria for Instrument Landing Systems.

11. FAA Order 6750.24, Instrument Landing System and Ancillary Electronic Component Configuration and Performance Requirements.

12. FAA Order JO 6750.57, Instrument Landing System Continuity of Service Requirements and Procedures.

13. FAA Order JO 6850.2, Visual Guidance Lighting Systems.

14. FAA Order 6950.2, Electrical Power Policy Implementation at National Airspace System Facilities.

15. FAA Order JO 7110.65, Air Traffic Control.

16. FAA Order 8200.1, United States Standard Flight Inspection Manual.

17. FAA Order 8240.47, Determination of Instrument Landing System (ILS) Glidepath Angle, Reference Datum Heights (RDH), and Achieved Reference Datum Heights (ARDH).

18. FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

19. FAA Order 8260.19, Flight Procedures and Airspace.

20. FAA Order 8260.43, Flight Procedures Management Program.

21. Flight Operations Branch website at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/.

22. Flight Procedure Standards Branch website at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420/.

23. ICAO Annex 10, Aeronautical Telecommunications.

Appendix B. Abbreviations and Acronyms

AC	Advisory Circular	ILS	Instrument Landing System
ADO	Airport District Office	IM	Inner Marker
A/FD	Airport/Facility Directory	LOA	Letter of Authorization / Letter of Agreement
ALSF	Approach Lighting System With Sequenced Flashing Lights	LOC	Localizer
AP	Autopilot	LPV	Localizer Performance with Vertical Guidance
ARDH	Achieved Reference Datum Height	MALSR	Medium Intensity Approach Lighting System with RAIL
ATC	Air Traffic Control	MM	Middle Marker
ATCT	Air Traffic Control Tower	MSpec	Management Specification
ATIS	Automatic Terminal Information Service	MTBO	Mean Time Between Outages
AJV-5	Aeronautical Information Services	NAS	National Airspace System
CAT	Category	NCP	NAS Change Proposal
CFR	Code of Federal Regulations	NFPO	National Flight Procedures Office
CHDO	Certificate-Holding District Office	NOTAM	Notice to Airmen
СМО	Certificate Management Office	OFZ	Obstacle Free Zone
DA	Decision Altitude	OM	Outer Marker
DH	Decision Height	OpSpec	Operations Specification
FD	Flight Director	RA	Radio Altimeter
FPO	Flight Procedures Office	RAIL	Runway Alignment Indicator Lights
FSDO	Flight Standards District Office	RA NA	Radar Altimeter minimums Not Authorized
FSIMS	Flight Standards Information Management System	RCL	Runway Center Line
GLS	Ground Based Augmentation System (GBAS) Landing System	RDH	Reference Datum Height
GPI	Ground Point of Intercept	RVR	Runway Visual Range
GS	Glideslope	SAACR	Special Aircrew and Aircraft Certification Required
HATh	Height Above Threshold	SIAP	Standard Instrument Approach Procedure

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HAT	Height Above Touchdown	SMGCS	Surface Movement Guidance and Control System
HIRL	High Intensity Runway Lights	SSALR	Simplified Short Approach Lighting System with RAIL
HUD	Head-up Display	ТСН	Threshold Crossing Height
IAP	Instrument Approach Procedure	TDZ	Touchdown Zone
ICAO	International Civil Aviation Organization	TERPS	Terminal Instrument Procedures
IFP	Instrument Flight Procedures		

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 II (CAT II) operations is contained in the following checklists.

Coordination of checklists will be accomplished by the assigned Flight Technologies Division (AFS-400) Flight Standards representative. Sample checklists for Technical Operations (TechOps), Terminal Services (AJT), Airports, and Technical Operations Aviation System Standards (AJW-3) are provided.

Pre-Checklist					
Coordinate the evaluation of the Type equipment for Runway at					
AIRPORT		CITY			STATE
to determine its ca	pability to provide CA	AT II ag	oproach and	landing r	ninimums.
Date requested:					
Requested by:					
Airport Manager's obtained	concurrence				Yes No
CAT II minimum:	DH		НАТ		RVR
		Post-	<u>Checklist</u>		
Procedure was coor	rdinated with the IFP				Yes No
All checklists are si	igned and all discrepane	cies have	e been resolv	ved	Yes No
CAT II flight inspe	ction completed satisfa	ctorily			Yes No
CAT II minimum:	DH/RA		HAT		RVR
Comments:					
Target dates for attainment of CoS and 14 CFR part 97 publication:					
CAT II CoS: Target Publication Date:					

AFS-400 Representative (Print)	Signature	Date

COORDINATION WITH THE FOLLOWING OFFICES:

	DATES				
OFFICE	PROVIDED	RETURNED	OK?		
Technical Operations (TechOps):					
Discrepancies/Comments:					
Resolution:					
Terminal Services (AJT):					
Discrepancies/Comments:					
Resolution:					
Airports:					
Discrepancies/Comments:					
Resolution:					
		1			

TechOps Checklist for SA CAT II Operations

Runway:_____ Airport:_____ City:__

State:

This checklist is to verify that the equipment for the runway listed above meets the requirements to provide Class II/D/2 performance in support of the proposed CAT II approach and landing operations.

CAT II RVR 1600 (II/D/2):	□Yes □No	CAT II RVR 1200 (II/D/2):	Yes No
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Confirm that all ground system requirements in FAA Order 8400.13, Chapter 5, Special Authorization (SA) CAT II Approach Operations, applicable to TechOps 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 Flight Standards specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards specialist in order to preclude delay of CAT II service to the users. Once approval is granted, Flight Standards will issue authorization for CAT II operations.

I. <u>General Information</u>. Immediately upon initiation of this checklist, please provide the Flight Standards all weather operations specialist (listed below) with the name and telephone number of your CAT II/III coordinator for monitoring the accomplishment of your checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

Please set monitor alarms to CAT II tolerances and initiate CoS.

II. <u>General Data.</u>

А.	Facility ID:		
B.	Glideslope (GS) Angle: degrees.		
C.	Published Threshold Crossing Height (TCH): feet.	

III. ILS Systems. (Ref. AC 120-29 and Order 6750.24.)

A. Localizer (LOC) and GS equipment and arra effect, etc.):	y type (e.g., Mark 20 and 14-element, capture-	
(1) LOC/array type:		
(2) GS equipment type:		
(3) Far Field Monitor installed (not required):	☐Yes ☐No	
B. Facility is certified for and capable of mainta classification of at least Class II/D/2 (Ref. Or	ining a performance rder 6750.24): Yes No	
CAT II Monitor Start Date	CAT II Flight Inspection Date	
CoS Start Date Estimated CoS Completion Date		

C. Remote Status Monitors (LOC/GS) (Ref. Order 6750.16):		Yes No	
Location(s):	LOC:	GS:	
D. Marker Beaco	ons (Ref. Order 6750.16):		
(1) Outer Mak	e (OM) installed (not required):		□Yes □No
(2) Middle Ma	aker (MM) installed (not required):		□Yes □No
(3) Inner Mak	er (IM) installed (for "RA NA" operat	ions):	□Yes □No
E. Approach Lig Ref. Order JO	ght System (MALSR, SSALR, or ALS) 6850.2) installed:	F-1/2;	Yes No
(1) Monitored	(Ref. Order 6750.24)?		Yes No
(2) Green three	shold bar installed?		☐Yes ☐No
(3) Approach	light system mounted on frangible fixt	ures?	☐Yes ☐No
FThe LOC and operations:	GS critical areas are adequate to suppo	ort CAT II/III	Yes No
(1) Are the LO	OC and GS critical areas standard (Ref	. Order 6750.16)?	Yes No
(2) If critical a	reas are non-standard, provide a descr	iption and attach criti	cal area drawings:

Notify the Flight Standards specialist upon completion of CoS burn-in requirements.

IV. <u>**RVR Equipment.**</u> 1600 RVR, one sensor required; 1200 RVR, two sensors required. (Ref. Orders 6750.24 and 6560.10.)

A Installed in accordance with AC 97-1 and Order 6560.29:	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

V. <u>Electrical Power Requirements.</u> Indicate whether the following components meet CAT II standards for backup power and power transfer. (Ref. Order 6950.2.) (Enter "NA" if not installed.)

A. LOC:	Yes No
B. GS:	Yes No
C. OM:	Yes No NA
D. MM:	Yes No NA

Е. ІМ:	Yes No NA
F. RVR (Touchdown):	Yes No
G. RVR (Midpoint):	Yes No NA
H. RVR (Rollout):	Yes No NA
I. ALSF-1/2, SSALR, MALSR:	Yes No NA

VI. Siting Standards. Confirm the following NAVAIDs meet siting standards. (Ref. Order 6750.16.)

LOC Antenna:	Yes No	GS Mast/Antenna: Yes No
Remarks:		

VII. Additional Information.

A.	List all approved and pending NAS NCP applicable to the facilities in this checklist (ILS,
	approach lights, RVR, etc.):

B. Indicate the Tech Ops Systems Support Center and hours of coverage for qualified technicians on duty at the airport for this system:

Category II/III Coordinator	Si
(Print)	

Signature

Date

Manager, Service Area Operations Signature Engineering Group (Print) Date

ATO AJT Checklist for SA 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.

|--|

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 Flight Standards specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards specialist in order to preclude delay of CAT II service to the users. Once approval is granted, Flight Standards will issue authorization for CAT II operations.

I. <u>General Information</u>. Immediately upon initiation of this checklist, please provide the Flight Standards specialist (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of your checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

II. CAT II ILS Operational Requirements. (Ref. Order JO 7210.3.)

A. LOA coordinated with the appropriate offices (i.e., TechOps, Airports	
Division/District Office, Flight Standards and Airport Authority). (Please attach	
copy.)	Yes No NA

III. Monitor Capability and Coordination. (Ref. AC 120-29.)

A. Verify that monitoring capability exists in the ATCT for:	
(1) Localizer (LOC):	Yes No
(2) Glideslope (GS):	☐Yes ☐No
(3) Inner Maker (IM) (for RA NA operations):	☐Yes ☐No ☐NA
B. Arrangements exist for airport personnel to advise ATCT whenever the runway lighting system does not meet CAT II requirements:	Yes No
C. Is an approved electrical monitoring system installed in the ATCT for the approach light system?	Yes No

IV. Power Transfer. (Ref. AC 120-29.)

A. Arrangements exist to start engine generators for:
(1) RVR:
(2) Runway Lights (check all that apply): HIRL TDZ RCL None
(3) Approach light system and power vault (if ALSF installed) Yes No

V. <u>Communications.</u> (Ref. Order JO 7110.65.)

A. Positive Control of Aircraft and Ground Vehicles on Runway and ILS Critical Areas (Ref. AC 120-29, AC 150/5340-1, and Order JO 7110.65):	Yes No
B. Indicate how facility outages and airport conditions (Ref. Order JO 7110.65 and JO 7210.3) are reported (ATIS, NOTAM, etc.):	

Facility Air Traffic Manager (Print)

Signature

Date

Airports Division Checklist for SA CAT II Operations

Runway: Airport: City: State:	
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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:	00: Yes No
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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 Flight Standards specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards specialist in order to preclude delay of CAT II service to the users. Once approval is granted, Flight Standards will issue authorization for CAT II operations.

I. <u>General Information</u>. Immediately upon initiation of this checklist, please provide the Flight Standards specialist (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of the checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

II. <u>Lighting Aids.</u> 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. (Ref. AC 150/5340-30C and Order JO 6850.2.)

A High Intensity Runway Edge Lights:	Yes No
B Threshold/Runway End Lights (in addition to threshold lights which are integral to the approach light system):	Yes No
C. Runway Centerline (RCL) Lights (not required):	□Yes □No □NA
D Runway Touchdown Zone (TDZ) Lights (not required):	Yes No NA
E. Approach Lights (MALSR, SSALR, or ALSF-1/2) (if non-Federal):.	Yes No NA

III. Monitoring of Lighting Aids.

A Arrangements for airport personnel to advise ATCT whenever the runway lighting system does not meet CAT II requirements:		
B. Specify the organization responsible for remote monitoring or visual inspection of lighting components. Enter "none" if not installed:		
<u>Component</u>	<u>Remote Monitor</u>	Visual Inspection
(1) Runway Edge Lights:		
(2) RCL Lights:		
(3) Runway TDZ Lights:		
(4) Approach Lights (if non-Federal):		

IV. <u>Surface Markings and Signs Installed.</u> (Ref. AC 150/5340-1, AC 150/5340-18, Order 6750.16, and Order JO 7110.65.)

A. Precision Instrument Runway Markings:	Yes No
B Runway Holding Position Markings and Signs:	Yes No
CCAT II ILS Critical Areas Identified. ILS Critical Area Holding Position Markings and Signs:	Yes No

V. <u>Obstacle Clearance</u>. 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:	
(1) Approach light plane clear:	Yes No
(2) If light plane is not clear, describe any penetrations:	

VI. <u>Electrical Power Requirements.</u> Verify that the following components, if installed, meet the requirement for one-second power transfer. (Ref. Order 6950.2 and AC 150/5340-30.)

A. Threshold and Runway Edge Lights:	
B. RCL Lights:	
C. TDZ Lights:	
D. Approach Lights (if non-Federal):	

VII. <u>National Standards.</u> List all approved and planned modifications to airport national design standards regarding the proposed runway and equipment, including those related to facility frangibility.

 Recommended By:
 Division,
 Signature
 Date

 (Print)
 AXX-XXX
 Date

 Manager, Airports Division
 Signature
 Date

Manager, Airports Division Signature (Print)

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 AC 120-29, Appendix 2, Airborne Systems for Category I, and AC 120-28 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 Operations (Latest version of FAA Order 8200.1, Chapter 15).
- Block V, CAT III Operations (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 Flight Standards specialist. When all portions of this checklist are complete, the checklist will be forwarded to the appropriate Flight Standards branch manager via the Aircraft Evaluation Division to preclude the delay of the requested service to the users.

Please provide the following information.

I.	General Data	
А	Location:	
В	Airport:	
С	Runway Number:	
D	Facility ID:	
Е	Runway Length (ft.) / Width (ft.):	/
F	Runway Gradient % +/-:	
G	Runway Surface Type:	
Η	Runway Grooving:	
Ι	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	GlideslopeS Clearance Below Path:	Sat Unsat
D	Missed Approach:	Sat Unsat
Е	MALSR or better:	Yes No

III.	SA CAT II Operations	
А	LOC #1 (CAT II/D Minimum):	
В	LOC Performance Classification:	
С	GS #1 (CAT II Criteria):	
D	Radio Altimeter (RA) Setting Height:	
Е	RDH Crossing Height:	
F	ARDH Crossing Height:	
G	CAT II ILS SIAP:	Yes No
Η	Missed Approach:	Sat Unsat
Ι	MALSR or better:	Yes No

*NOTE: If dual transmitter, complete IV A & B below.

IV.	CAT II Tolerances Met	
Α	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:

DATE	SIGNATURE
	DATE

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 II (CAT II) and Category III (CAT III) operations is contained in the following checklists.

Coordination of checklists will be accomplished by the assigned All Weather Operations (AWO) specialist assigned by Flight Technologies Division (AFS-400). Recommended checklists for Technical Operations (TechOps), Terminal Services (AJT), Airports, and Technical Operations Aviation System Standards (AJW-3) are provided.

<u>Pre-Checklist</u>						
Coordinate the ev	aluation of the T	ype equip	oment for Runy	way	at	
AIRPORTCITYSTATEto determine its capability to provide CAT II and/or CAT III approach and landing minimums.						
Date requested:						
Requested by:						
Airport Manager's	concurrence obta	ined:]Yes []No	
		Post-Ch	<u>ecklist</u>			
Procedure was coo	rdinated with the	IFP:		Yes	No	
All checklists are s	igned and all disc	repancies have b	een resolved:	Yes	No	
CAT II/III flight in	spection complet	ed satisfactorily:		Yes [No	
CAT II minimum:	DH	HAT		RVR		
Approved for RVR	1000 Autoland o	or HUD Minima?		Yes	No	
CAT III minimum:	DH	RVR				
Comments:						
Target dates for att	ainment of CoS a	nd 14 CFR part 9	7 publication:			
CAT II CoS:			Target Publicat	ion Date:		
CAT III CoS:			Target Publicat	ion Date:		
AFS-400 Specialis	t (Print) Sig	gnature			Date	

COORDINATION WITH THE FOLLOWING OFFICES:

	DAT	ES		
OFFICE	PROVIDED	RETURNED	OK?	
Technical Operations (TechOps):				
Discrepancies/Comments:				
Resolution:				
Terminal Services (AJT):				
Discrepancies/Comments:				
Resolution:				
Airports:				
Discrepancies/Comments:				
Resolution:				
AVIATION SYSTEM STAND	ARDS:			
Flight Program Operations (AJW-3):				
Discrepancies/Comments:				
Resolution:				
Flight Procedures (AJW-32):				
Discrepancies/Comments:				
Resolution:				

TechOps Checklist for CAT II/III Operations

 Runway:
 Airport:
 City:
 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 IIIa 700 RVR (III/D/3):	Yes No
CAT II RVR 1200 (II/D/2):	Yes No	CAT IIIb 600 RVR (III/E/3):	Yes No
CAT II RVR 1000 (II/D/2):	□Yes □No	CAT IIIb 300 RVR (III/E/4):	Yes No

Confirm that all ground system requirements in Order 8400.13 applicable to TechOps 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 Flight Standards all weather operations specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards All Weather Operations (AWO) specialist in order to preclude delay of CAT II/III service to the users. Once approval is granted, the Flight Standards will issue authorization for CAT II/III operations.

I. <u>General Information</u>. Immediately upon initiation of this checklist, please provide the Flight Standards all weather operations specialist (listed below) with the name and telephone number of your CAT II/III coordinator for monitoring the accomplishment of your checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

Please set monitor alarms to CAT II/III tolerances and initiate CoS.

II. General Data.

А.	Facility ID:
B.	Glideslope Angle: degrees.
C.	Published Threshold Crossing height (TCH) feet.

III. <u>ILS Systems.</u> (Ref. AC 120-28, AC 120-29, and Order 6750.24.)

A.	Localizer (LOC) and GS equipment and array type (Mark 20 and 14-elemetc.):	ent, capture-effect,
	(1) LOC/array type:	
	(2) GS equipment type:	
	(3) Far Field Monitor installed	Yes No

B. Facility is certified for and capable of ma required performance classification (Ref. Order 6750.24):	intaining the II/D/2 III/D/3 III/E/3 III/E/4 No
(1) Facility certified and maintained to C. CAT III:	AT II or CAT II □CAT III □No
CAT II/III Monitor Start Date:	CAT II/III Flight Inspection Date:
CoS Start Date:	Estimated CoS Completion Date:

Notify the Flight Standards all weather operations specialist upon completion of CoS burn-in requirements.

C. Remote Status Monitors (LOC/GS) Installed (Ref. Order 6750.16):			Yes No	
	Location(s):	LOC:	GS:	
D.	Marker Beaco	ons: (Ref Order 6750.16):		
	(1) Outer Ma	ker (OM) installed (not required):		Yes No
	(2) Middle M	laker (MM) installed (not required):		Yes No
	(3) Inside Ma	aker (IM) installed: (for "RA NA" CA	AT II operations):	Yes No
E.	Approach Lig	ght System: installed (Ref. Order JO 6	850.2):	Yes No
	(1) Monitore	d (Ref Order 6750.24):		Yes No
F.	The LOC and operations:	I GS critical areas are adequate to sup	port CAT II/III	Yes No
	(1) Are the L	OC and GS critical areas standard (Re	ef. Order 6750.16)?	Yes No
	(2) If critical area draw	areas are non-standard, provide a des vings:	cription and attach criti	ical

IV. <u>RVR Equipment.</u> (Ref. Orders 6750.24 and 6560.10.)

A. Installed in accordance with AC 97-1 and Order 6560.29:	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

V. <u>Electrical Power Requirements.</u> Indicate whether the following components meet CAT II/III standards for backup power and power transfer. (Ref. Order 6950.2.)

A. LOC:	Yes No
B. GS:	Yes No
C. OM:	Yes No NA
D. MM:	Yes No NA
E. IM:	Yes No NA
F. RVR (Touchdown):	Yes No
G. RVR (Midpoint):	Yes No NA
H. RVR (Rollout):	Yes No NA
I. ALSF-2:	Yes No

VI. Siting Standards. Confirm the following NAVAIDs meet siting standards (Ref. Order 6750.16).

LOC Antenna:	Yes No	GS Mast/Antenna: Yes No
Remarks:		

VI. Additional Information.

- A. List all approved and pending NAS NCP applicable to the facilities in this checklist (ILS, approach lights, RVR, etc.):
- B. Indicate the Tech Ops 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, Service Area Operations Engineering Group (Print)	Signature	Date

ATO AJT Checklist for CAT II/III Operations

Runway: Ai

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/III approach and landing operations.

CAT II RVR 1600 (II/D/2):	Yes No	CAT IIIa RVR 700 (III/D/3):	Yes No
CAT II RVR 1200 (II/D/2):	Yes No	CAT IIIb RVR 600 (III/E/3):	Yes No
CAT II RVR 1000 (II/D/2):	Yes No	CAT IIIb RVR 300 (III/E/4):	Yes No

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 Flight Standards All Weather Operations (AWO) specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards AWO specialist in order to preclude delay of CAT II/III service to the users. Once approval is granted, the Flight Standards will issue authorization for CAT II/III operations.

I. <u>General Information</u>. Immediately upon initiation of this checklist, please provide the Flight Standards representative (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of your checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

II. CAT II/III Operational Requirements. (Ref. Order JO 7210.3.)

A. LOA coordinated with the appropriate offices (i.e., TechOps, Airports	
Division/District Office, Flight Standards, and Airport Authority). Please attach	
copy:	Yes No

III. Monitor Capability and Coordination. (Ref. AC 120-28 and 120-29.)

A. Verify that monitoring capability exists in the ATCT for:
(1) Localizer (LOC):
(2) Glideslope (GS): Yes No
(3) Inner Maker (IM) (for RA NA operations): Yes No NA
B. 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?

IV. Power Transfer. (Ref. AC 120-28 and AC 120-29.)

A. Arrangements exist to start engine generators for:
(1) RVR:
(2) Runway lights (check all that apply): HIRL TDZ RCL None
(3) Approach light system and power vault (if ALSF installed): Yes No

V. Communications.

A. Positive Control of Aircraft and Ground Vehicles on Runway and ILS Critical Areas (Ref, AC 120-28, paragraph 8; AC 150/5340-1; and Order JO 7110.65): Yes	Лo
B. Indicate how facility outages and airport conditions (Ref. Orders JO 7110.65 and JO 7210.3) are reported (ATIS, NOTAM, etc.):	

Facility Air Traffic Manager (Print) S

Signature

Date

Airports Division Checklist for 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/III approach and landing operations.

CAT II RVR 1600 (II/D/2):	Yes No	CAT IIIa RVR 700 (III/D/3):	Yes No
CAT II RVR 1200 (II/D/2):	□Yes □No	CAT IIIb RVR 600 (III/E/3):	Yes No
CAT II RVR 1000 (II/D/2):	Yes No	CAT IIIb RVR 300 (III/E/4):	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 Flight Standards All Weather Operations (AWO) specialist. When all portions of this checklist are complete, please return the checklist expeditiously to the Flight Standards AWO specialist in order to preclude delay of CAT II/III service to the users. Once approval is granted, Flight Standards will issue authorization for CAT II/III operations.

I. General Information. Immediately upon initiation of this checklist, please provide the Flight Standards all weather operations specialist (listed below) with the name and telephone number of your staff member/point of contact for monitoring the accomplishment of the checklist.

AFS-400:	Phone Number:
Alternate:	Phone Number:

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. (Ref. AC 150/5340-30 and Order JO 6850.2.)

A. High Intensity Runway Edge Lights:	Yes No
B. Threshold/Runway End Lights (in addition to threshold lights which are integral to the approach light system):	Yes No
C. Runway Centerline (RCL) Lights:	Yes No
D. Runway Touchdown Zone (TDZ) Lights:	Yes No
E. ALSF-2 Approach Lights (if non-Federal):	Yes No
NOTE: For authorization less than RVR 1200, include a copy of the SMGCS details of all required lighting aids (taxiway centerline (CL) lights, stop bars, etc.)	b plan and taxi chart with

III. Monitoring of Lighting Aids.

A. Arrangements for airport personnel to advise ATCT whenever the runway lighting system does not meet CAT II/III requirements:		
B. Specify the organization responsible for remote monitoring and visual inspection of lighting components. Enter "none" if not installed:		
Component	Remote Monitor	Visual Inspection
(1) Runway Edge Lights:		
(2) RCL Lights:		
(3) Runway TDZ Lights:		
(4) Approach Lights (if non-Federal):		

IV. Surface Markings and Signs Installed. (Ref. AC 150/5340-1, AC 150/5340-18, Order 7110.65, and

Order 6750.16.)

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 Position	
Markings and Signs:	∐Yes ∐No

V. <u>Obstacle Clearance</u>. 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:	☐Yes ☐No
(2) If light plane is not clear, describe any penetrations:	

VI. <u>Electrical Power Requirements.</u> (Ref. Order 6950.2.) Verify that the following components, if installed, meet the requirement for one second power transfer:

A. Threshold and Runway Edge Lights:	Yes No
B. RCL Lights:	Yes No
C. TDZ Lights:	Yes No
D. Approach Lights (if non-Federal):	Yes No

VII. <u>National Standards.</u> List all approved and planned modifications to airport national design standards regarding the proposed runway and equipment, including those related to facility frangibility.

Recommended By: (Print)	Division, AXX-XXX	Signature	Date
Manager, Airports Div	ision (Print)	Signature	Date

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 AC 120-29, Appendix 2, Airborne Systems for Category I, and AC 120-28 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 Operations (Latest version of FAA Order 8200.1, Chapter 15).
- Block V, CAT III Operations (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 Flight Standards all weather operations specialist. When all portions of this checklist are complete, the checklist will be forwarded to the appropriate Flight Standards branch manager via Aircraft Evaluation Division (AVN-100) to preclude the delay of the requested service to the users.

Please provide the following information.

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

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

III.	Special Authorization CAT II Operations	
А	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
Η	Missed Approach:	Sat Unsat
Ι	MALSR or better:	Yes No

*NOTE: If dual transmitter, complete IV A & B below.

IV.	CAT II Tolerances Met	
А	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		



U.S. Department of Transportation Federal Aviation Administration

FAA Form 1320-19, Directive Feedback Information

Please submit any written comments or recommendations 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 8400.13E, 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, AFS-140 Directives Mailbox (9-AWA-AFS-140-Directives@faa.gov)

(Please check all appropriate line items)

An error (procedural or typographical) has been noted in paragraph	on
page	

Π	Recommend paragraph	on page	 be changed a	s follows:
	(attach separate sheet if	necessary)		

In a future change to this directive, please include coverage on the following subject
(briefly describe what you want added):

Other comments:

I would like to discuss the above. Please contact me.				
Submitted by:	Date:			
FTS Telephone Number:	Routing Symbol:			
FAA Form 1320-19 (8-89)				