NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.443

National Policy

Effective Date:
11/17/17

Cancellation Date:
11/17/18

SUBJ: OpSpec/MSpec/LOA C060, Category II and Category III Instrument Approach and Landing Operations

1. Purpose of This Notice. This notice provides revised guidance for Federal Aviation Administration (FAA) certificate-holding district offices (CHDO), International Field Offices (IFO), and principal operations inspectors (POI) with oversight responsibilities for operators conducting airplane operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), 129, and 135. This notice amends and clarifies operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) C060. This notice amends all C060 templates (i.e., OpSpec/MSpec/LOA C060) for operators conducting airplane operations under parts 91, 91K, 121, 125 (including part 125 LODA holders), 129, and 135. This is a mandatory revision to OpSpec/MSpec/LOA C060. OpSpec/MSpec/LOA C059, Category II Instrument Approach and Landing Operations, will be decommissioned at the end of the compliance period (see paragraph 6).

2. Audience. The primary audience for this notice is FAA CHDOs, IFOs, and POIs with oversight responsibilities for operators conducting airplane operations under parts 91, 91K, 121, 125 (including part 125 LODA holders), 129, and 135. The secondary audience includes all Flight Standards Service divisions, branches, and offices.

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at http://fsims.avs.faa.gov. Operators can find this notice on the FAA's website at http://fsims.faa.gov. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. OpSpec/MSpec/LOA C060 authorizes and lists the requirements and limitations for Category (CAT) II and CAT III approach and landing operations. The following changes have been made:

- OpSpec C059 will be decommissioned.
- The CAT II authorizations and requirements contained in OpSpec C059 have been combined with the CAT III authorizations and requirements of the old C060 and

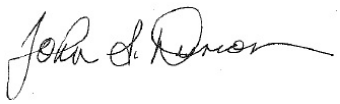
incorporated in the revised OpSpec C060, Category II and Category III Instrument Approach and Landing Operations.
- Added selectable Hybrid CAT III option (not available for part 129). Authorization requires coordination with the Flight Technologies and Procedures Division (AFS-400) and the Air Transportation Division (AFS-200) or General Aviation and Commercial Division (AFS-800).
- Minor changes to the authorizations or requirements for CAT II or CAT III operations have been made, including verbiage regarding enhanced flight vision system (EFVS) use during CAT II/III operations.

5. Guidance. AFS-400, in cooperation with AFS-200, AFS-800, the International Program Division (AFS-50), and industry members of the Operations Specifications Working Group (OSWG), developed this notice. This notice contains the following:

- The sample OpSpec C060 template in Appendix A applies to part 121.
- The sample OpSpec C060 template in Appendix B applies to part 125.
- The sample OpSpec C060 template in Appendix C applies to part 135.
- The sample OpSpec C060 template in Appendix D applies to part 121/135.
- The sample LOA C060 template in Appendix E applies to part 91.
- The sample MSpec MC060 template in Appendix F applies to part 91K.
- The sample LOA C060 template in Appendix G applies to part 125 A125 LODA holders.
- The sample OpSpec C060 template in Appendix H applies to part 129.
- The inspector guidance changes in Appendix I for parts 91, 91K, 121, 125 (including A125 LODA holders), and 135 contained in FAA Order 8900.1, Volume 3, Chapter 18, Section 5, Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations.
- The inspector guidance changes in Appendix J for part 129 contained in Order 8900.1, Volume 12, Chapter 2, Section 5, Part 129 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations.

6. Action. POIs should review the revised guidance for issuance of OpSpec/MSpec/LOA C060. POIs should provide this notice to the operators for whom they are responsible, alerting them to updated operating procedures, as well as required pilot knowledge and training. This revision is mandatory, with a compliance date of 6 months from the date of this notice. When issuing the revised C060 to operators, POIs must also issue a revised OpSpec A004, Summary of Special Authorizations and Limitations, and manually archive the C059 issued to the operator.

7. Disposition. We will incorporate the information in this notice into Order 8900.1 before this notice expires. Direct questions concerning the information in this notice to the Flight Operations Branch (AFS-410) at 202-267-8790.



John S. Duncan
Executive Director, Flight Standards Service

Appendix A. Sample OpSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 121

a. The certificate holder is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph.

b. Authorized Approach and Landing Minimums. The certificate holder is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable section of 14 CFR and the FAA-approved AFM for the conduct of the operations authorized above in subparagraph a must be installed and operational. Any additional airborne equipment that is required must be operational and listed in Table 1 and, if applicable, Table 2.

d. Required RVR Reports. The certificate holder is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling, except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the certificate holder is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs. The minimums prescribed in this operations specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the certificate holder's check pilots or an FAA inspector.

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

g. Operating Limitations. The certificate holder must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The certificate holder must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the certificate holder determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

> **Note:** If the certificate holder is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the certificate holder is authorized EFVS operations under § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Foreign Airports. The certificate holder is authorized to conduct the operations in subparagraph a at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Runway Restrictions. The certificate holder is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

k. Maintenance. The certificate holder must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

l. Engine Inoperative Operations. The certificate holder is approved for operations authorized in subparagraph a with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

m. Hybrid CAT III Operations. The certificate holder is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph b.

Appendix B. Sample OpSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 125

a. The certificate holder is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph.

b. Authorized Approach and Landing Minimums. The certificate holder is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Field Length and Special Operational Equipment and Limitations.

(1) The destination runway length must be determined prior to takeoff to be at least 115 percent of the runway field length required by the AFM.

(2) The certificate holder must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless:

(a) The special equipment listed in Table 1 and, if applicable, Table 2, is installed and operational, and the limitations listed or referenced in Table 1 and, if applicable, Table 2, are met; and

(b) If unforecast adverse weather or failures occur, the runway length needed for landing is determined prior to approach. The runway to be used, reported runway and weather conditions, AFM limitations, operational procedures, and airplane equipment status should be considered.

d. Required RVR Reports. The certificate holder is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling, except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the certificate holder is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs.

(1) The minimums prescribed in this operations specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the certificate holder's check pilots or an FAA inspector.

(2) Before conducting the operations authorized in subparagraph a, the PIC must meet the requirements of 14 CFR part 125, § 125.379.

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

g. Operating Limitations. The certificate holder must not begin the FAS of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The certificate holder must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the certificate holder determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the certificate holder is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the certificate holder is authorized EFVS operations under § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Foreign Airports. The certificate holder is authorized to conduct the operations in subparagraph a at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Runway Restrictions. The certificate holder is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

k. Maintenance. The certificate holder must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

l. Engine Inoperative Operations. The certificate holder is approved for operations authorized in subparagraph a with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

m. Hybrid CAT III Operations. The certificate holder is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph b.

Appendix C. Sample OpSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 135

a. The certificate holder is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph.

b. Authorized Approach and Landing Minimums. The certificate holder is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable section of 14 CFR and the FAA-approved AFM for the conduct of the operations authorized above in subparagraph a must be installed and operational. Any additional airborne equipment that is required must be operational and listed in Table 1 and, if applicable, Table 2.

d. Required RVR Reports. The certificate holder is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the certificate holder is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs.

(1) The minimums prescribed in this operations specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the certificate holder's check pilots or an FAA inspector.

(2) Before conducting the operations authorized in subparagraph a, the PIC must meet the requirements of 14 CFR part 135, § 135.225(e).

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

g. Operating Limitations. The certificate holder must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The certificate holder must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the certificate holder determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

> **Note:** If the certificate holder is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system, or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the certificate holder is authorized EFVS operations under § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Foreign Airports. The certificate holder is authorized to conduct the operations in subparagraph a at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Runway Restrictions. The certificate holder is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

k. Maintenance. The certificate holder must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

l. Engine Inoperative Operations. The certificate holder is approved for operations authorized in subparagraph a with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

m. Hybrid CAT III Operations. The certificate holder is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph b.

Appendix D. Sample OpSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 121/135

a. The certificate holder is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph.

b. Authorized Approach and Landing Minimums. The certificate holder is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable section of 14 CFR and the FAA-approved AFM for the conduct of the operations authorized above in subparagraph a must be installed and operational. Any additional airborne equipment that is required must be operational and listed in Table 1 and, if applicable, Table 2.

d. Required RVR Reports. The certificate holder is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the certificate holder is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs.

(1) The minimums prescribed in this operations specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the certificate holder's check pilots or an FAA inspector.

(2) For 14 CFR part 135 operations, before conducting the operations authorized in subparagraph a, the PIC must meet the requirements of part 135, § 135.225(e).

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O (3) TDZ 1000 RVR CAT II. The certificate holder is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the certificate holder is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

g. Operating Limitations. The certificate holder must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The certificate holder must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the certificate holder determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

> **Note:** If the certificate holder is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the certificate holder is authorized EFVS operations under § 91.176(a), the certificate holder may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Foreign Airports. The certificate holder is authorized to conduct the operations in subparagraph a at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Runway Restrictions. The certificate holder is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

k. Maintenance. The certificate holder must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

l. Engine Inoperative Operations. The certificate holder is approved for operations authorized in subparagraph a with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

m. Hybrid CAT III Operations. The certificate holder is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph b.

Appendix E. Sample LOA C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 91

1. The operator is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this letter of authorization (LOA).

2. Authorized Approach and Landing Minimums. The operator is authorized to conduct the operations in subparagraph 1 using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

a. For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O b. CAT III operations are not authorized.

c. Operations must be conducted in accordance with RVR report requirements in subparagraph 4.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

3. Required Airborne Equipment. The flight instruments, radio navigation equipment, and other airborne systems required by the applicable section of 14 CFR and the FAA-approved AFM for the conduct of operations authorized above in subparagraph 1 must be installed and operational. Any additional airborne equipment that is required must be operational and listed in Table 1 and, if applicable, Table 2.

4. Required RVR Reports. The operator is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

a. For all CAT II operations:

(1) All available RVR reports are controlling.

(2) The TDZ RVR report is required.

(3) The mid RVR report is not required.

(4) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph 4a(5).

(5) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations:

(1) All available RVR reports are required and controlling except as specified below in subparagraphs 4b(2), (3), and (4).

(2) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(3) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(4) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(5) If the landing or rollout system degrades from FO to FP or the rollout system fails, the operator is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs 4b(5)i–iii) corresponding to the type of landing and/or rollout systems operable after the failure.

i. Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

ii. FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

iii. FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O b. CAT III operations are not authorized.

5. Pilot Qualifications and Approved Training Programs.

a. The minimums prescribed in this LOA are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the operator's approved CAT II/III training and who are qualified for the operations authorized above in subparagraph 1.

b. Flightcrew training is conducted by_____. In accordance with 14 CFR part 91, §§ 91.3 and 91.703(a)(1) and (2) and International Civil Aviation Organization (ICAO) Annex 2, Rules of the Air, paragraph 2.3.2, Pre-Flight Action, crews are responsible for policies and procedures in areas of operations where flights are conducted.

6. CAT II Operations.

a. The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

b. Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O c. TDZ 1000 RVR CAT II. The operator is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O c. Special Authorization (SA) CAT II. The operator is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or ICAO Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(1) Runway and approach lighting required in subparagraphs 7a(3) and (4) below are modified for SA CAT II as follows:

i. Runway lights: High Intensity Runway Lights (HIRL).

ii. Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(2) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(3) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the operator is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O c. TDZ 1000 RVR CAT II. The operator is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O d. Special Authorization (SA) CAT II. The operator is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or ICAO Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(1) Runway and approach lighting required in subparagraphs 7a(3) and (4) below are modified for SA CAT II as follows:

i. Runway lights: High Intensity Runway Lights (HIRL).

ii. Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(2) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(3) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the operator is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

7. Operating Limitations. The operator must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph 1 unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

a. The following ground-based equipment must be operational:

(1) Localizer (LOC) and glideslope (GS).

(2) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(3) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(4) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(5) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(6) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(7) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

b. The operator must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the operator determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

c. All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

d. CAT III operations may be commenced or continued even if the approach lights become inoperative.

8. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

a. For all CAT II operations:

(1) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(2) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(3) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

> **Note:** If the operator is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the operator may use the EFVS to meet the visual reference requirements of subparagraph 8a(3) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations:

(1) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(2) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(3) When any GS or LOC failure occurs prior to touchdown.

(4) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(5) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(6) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(7) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system: If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the operator is authorized EFVS operations under § 91.176(a), the operator may use the EFVS to meet the visual reference requirements of subparagraph 8b(7) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O b. CAT III operations are not authorized.

9. Foreign Airports. The operator is authorized to conduct the operations in subparagraph 1 at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

10. Runway Restrictions. The operator is authorized to conduct the operations in subparagraph 1 using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

11. Maintenance. The operator must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

12. Responsible Person. The Responsible Person for crew operations may be either an agent for service (who must be a U.S. citizen) or a person who is a U.S. citizen or holds a U.S. pilot certificate and accepts responsibility for complying with the stated regulations by signing this document.

a. If the Responsible Person signing this LOA relinquishes responsibility, this LOA becomes invalid.

b. Enter the name, email address, and telephone number in Table 5 of the Responsible Person signing this LOA:

Table 5 – Responsible Person

Name	Email Address	Telephone

[Select option 1 to authorize SA CAT I; select option 2 to authorize Hybrid CAT III operations; or select option 3 to authorize both SA CAT I and Hybrid CAT III operations, as applicable. An option does not need to be selected.]

O 13. Special Authorization (SA) CAT I. The operator is authorized SA CAT I landing minimums as low as 150 feet DH and 1400 RVR to approved runways without TDZ and/or runway centerline (RCL) lights, in accordance with the following requirements:

a. Only airplanes certified for CAT II operations are eligible for these operations. Those airplanes and equipment must be listed in Table 1. The authorized airplane(s) must be equipped with a HUD that is approved for CAT II or CAT III operations.

b. The flightcrew must be current and qualified for CAT II operations. The flightcrew must demonstrate proficiency in ILS approaches and landings to this minimum or lower using the HUD.

c. The flightcrew must use the HUD to DH in a mode used for CAT II or CAT III operations.

d. The flightcrew must use the HUD to DH, or to the initiation of missed approach, unless adequate visual references with the runway environment are established that allow safe continuation to a landing.

e. Should the HUD malfunction during the approach, the flightcrew must execute a missed approach unless visual reference to the runway environment has been established.

f. The crosswind component on the landing runway must be less than the AFM's crosswind limitations, or 15 knots or less, whichever is more restrictive.

g. The 14 CFR part 97 Standard Instrument Approach Procedure (SIAP) must have a published SA CAT I minimum.

h. TDZ RVR reports are controlling. The mid RVR report may not be substituted for the TDZ RVR report in SA CAT I operations.

OR

O 13. Hybrid CAT III Operations. The operator is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph 2.

OR

O 13. Special Authorization (SA) CAT I. The operator is authorized SA CAT I landing minimums as low as 150 feet DH and 1400 RVR to approved runways without TDZ and/or runway centerline (RCL) lights, in accordance with the following requirements:

a. Only airplanes certified for CAT II operations are eligible for these operations. Those airplanes and equipment must be listed in Table 1. The authorized airplane(s) must be equipped with a HUD that is approved for CAT II or CAT III operations.

b. The flightcrew must be current and qualified for CAT II operations. The flightcrew must demonstrate proficiency in ILS approaches and landings to this minimum or lower using the HUD.

c. The flightcrew must use the HUD to DH in a mode used for CAT II or CAT III operations.

d. The flightcrew must use the HUD to DH, or to the initiation of missed approach, unless adequate visual references with the runway environment are established that allow safe continuation to a landing.

e. Should the HUD malfunction during the approach, the flightcrew must execute a missed approach unless visual reference to the runway environment has been established.

f. The crosswind component on the landing runway must be less than the AFM's crosswind limitations, or 15 knots or less, whichever is more restrictive.

g. The 14 CFR part 97 Standard Instrument Approach Procedure (SIAP) must have a published SA CAT I minimum.

h. TDZ RVR reports are controlling. The mid RVR report may not be substituted for the TDZ RVR report in SA CAT I operations.

14. Hybrid CAT III Operations. The operator is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph 2.

Appendix F. Sample MSpec MC060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 91K

a. The program manager is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph.

b. Authorized Approach and Landing Minimums. The program manager is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Field Length and Special Operational Equipment and Limitations.

(1) The destination runway length must be determined prior to takeoff to be at least 115 percent of the runway field length required by the provisions of 14 CFR part 91, § 91.1037(b).

(2) The program manager must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless:

(a) The special equipment listed in Table 1 and, if applicable, Table 2, is installed and operational and limitations listed or referenced in Table 1 and, if applicable, Table 2, are met; and

(b) If unforecast adverse weather or failures occur, the runway length needed for landing is determined prior to approach. The runway to be used, reported runway and weather conditions, AFM limitations, operational procedures and airplane equipment status should be considered.

d. Required RVR Reports. The program manager is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the program manager is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs.

(1) The minimums prescribed in this management specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the program manager's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the program manager's check pilots or an FAA inspector.

(2) Before conducting the operations authorized in subparagraph a, the PIC must meet the requirements of § 91.1039(c).

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The program manager is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The program manager is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the program manager is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O (3) TDZ 1000 RVR CAT II. The program manager is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The program manager is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the program manager is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

g. Operating Limitations. The program manager must not begin the FAS of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The program manager must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the program manager determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the program manager is authorized enhanced flight vision system (EFVS) operations under § 91.176(a), the program manager may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the program manager is authorized EFVS operations under § 91.176(a), the program manager may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Foreign Airports. The program manager is authorized to conduct the operations in subparagraph a at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Runway Restrictions. The program manager is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

k. Maintenance. The program manager must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

l. Engine Inoperative Operations. The program manager is approved for operations authorized in subparagraph a with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

m. Hybrid CAT III Operations. The program manager is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph b.

Appendix G. Sample LOA C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 125 (A125 LODA Holder)

1. The operator/company is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations in accordance with the Letter of Deviation Authority (A125 LODA) using the limitations, provisions, procedures, and minimums specified in this letter of authorization (LOA).

2. Authorized Approach and Landing Minimums. The operator/company is authorized to conduct the operations in subparagraph 1 using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

a. For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O b. CAT III operations are not authorized.

c. Operations must be conducted in accordance with RVR report requirements in subparagraph 4.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

3. Required Field Length and Special Operational Equipment and Limitations.

a. The destination runway length must be determined prior to takeoff to be at least 115 percent of the runway field length required by the AFM.

b. The operator/company must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph 1 unless:

(1) The special equipment listed in Table 1 and, if applicable, Table 2, is installed and operational, and the limitations listed or referenced in Table 1 and, if applicable, Table 2, are met; and

(2) If unforecast adverse weather or failures occur, the runway length needed for landing is determined prior to approach. The runway to be used, reported runway and weather conditions, AFM limitations, operational procedures, and airplane equipment status should be considered.

4. Required RVR Reports. The operator/company is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

a. For all CAT II operations:

(1) All available RVR reports are controlling.

(2) The TDZ RVR report is required.

(3) The mid RVR report is not required.

(4) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph 4a(5).

(5) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations:

(1) All available RVR reports are required and controlling except as specified below in subparagraphs 4b(2), (3), and (4).

(2) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(3) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(4) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(5) If the landing or rollout system degrades from FO to FP or the rollout system fails, the operator/company is authorized to conduct operations in accordance with is MEL and AFM, using minimums no lower than those shown below (subparagraphs 4b(5)i–iii) corresponding to the type of landing and/or rollout systems operable after the failure.

i. Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

ii. FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

iii. FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O b. CAT III operations are not authorized.

5. Pilot Qualifications and Approved Training Programs.

a. The minimums prescribed in this LOA are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the operator/company's approved training program and who are qualified for the operations authorized in subparagraph 1 by one of the operator/company's check pilots or an FAA inspector.

b. Before conducting the operations authorized in subparagraph 1, the PIC must meet the requirements of 14 CFR part 125, § 125.379.

6. CAT II Operations.

a. The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

b. Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O c. TDZ 1000 RVR CAT II. The operator/company is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O c. Special Authorization (SA) CAT II. The operator/company is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(1) Runway and approach lighting required in subparagraphs 7a(3) and (4) below are modified for SA CAT II as follows:

i. Runway lights: High Intensity Runway Lights (HIRL).

ii. Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(2) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(3) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the operator/company is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

OR

O c. TDZ 1000 RVR CAT II. The operator/company is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O d. Special Authorization (SA) CAT II. The operator/company is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard or International Civil Aviation Organization (ICAO) Standard CAT II (e.g., European Other Than Standard (OTS) CAT II approaches).

(1) Runway and approach lighting required in subparagraphs 7a(3) and (4) below are modified for SA CAT II as follows:

i. Runway lights: High Intensity Runway Lights (HIRL).

ii. Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(2) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(3) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the operator/company is authorized to conduct operations under this SA CAT II subparagraph. (This only applies to U.S.-based approaches.)

7. Operating Limitations. The operator/company must not begin the FAS of an IAP authorized in subparagraph 1 unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

a. The following ground-based equipment must be operational:

(1) Localizer (LOC) and glideslope (GS).

(2) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(3) Runway lights: TDZ lights, centerline (CL) lights, High Intensity Runway Lights (HIRL), or foreign equivalent.

(4) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or foreign equivalent. Sequence flashing lights (SFL) may be inoperative.

(5) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(6) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(7) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

b. The operator/company must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the operator/company determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

c. All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS), European Aviation Safety Agency (EASA), or ICAO criteria for CAT III operations).

[Only select this text if CAT III operations are authorized.]

d. CAT III operations may be commenced or continued even if the approach lights become inoperative.

8. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

a. For all CAT II operations:

(1) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(2) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(3) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(4) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the operator/company is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the operator/company may use the EFVS to meet the visual reference requirements of subparagraphs 8a(3) and (4) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O b. For all CAT III operations:

(1) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(2) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or alert height (AH), or prior to touchdown for airplanes without a rollout system.

(3) When any GS or LOC failure occurs prior to touchdown.

(4) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(5) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(6) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(7) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

i. At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

ii. If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the operator/company is authorized EFVS operations under § 91.176(a), the operator/company may use the EFVS to meet the visual reference requirements of subparagraphs 8b(7)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O b. CAT III operations are not authorized.

9. Foreign Airports. The operator/company is authorized to conduct the operations in subparagraph 1 at only those specifically approved runways at foreign airports listed in Table 3 below.

Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

10. Runway Restrictions. The operator/company is authorized to conduct the operations in subparagraph 1 using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 4 below.

Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

11. Maintenance. The operator/company must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with its approved Lower Landing Minimums (LLM) maintenance or inspection program.

12. Engine Inoperative Operations. The operator/company is approved for the operations authorized in subparagraph 1 with an inoperative engine using the airplanes and limitations specified in Table 5 below.

Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text, if applicable.]

13. Hybrid CAT III Operations. The operator/company is authorized to conduct CAT III operations using Autoland and Head-Up-Guidance Systems (HGS) together as a Hybrid Landing system. All Hybrid CAT III operations must be conducted in accordance with the approved Hybrid Landing system training programs, operating manuals, and maintenance programs. CAT III Hybrid operations may be conducted to minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m), in accordance with subparagraph 2.

Appendix H. Sample OpSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 129

a. The foreign air carrier is authorized to conduct [Category II/Category II and Category III] instrument approach and landing operations as authorized below using the limitations, provisions, procedures, and minimums specified in this paragraph. The foreign air carrier must be authorized by the State of the Operator Civil Aviation Authority (CAA) to conduct these operations, and a copy of that authorization with the approved approach minimums must be provided to the FAA.

b. Authorized Approach and Landing Minimums. The foreign air carrier is authorized to conduct the operations in subparagraph a using TDZ, mid, and rollout RVR minimums no lower than those prescribed for the specific make, model, and series (M/M/S) of airplane listed below in Table 1 for CAT II operations and, if applicable, Table 2 for CAT III operations.

(1) For CAT II operations, TDZ RVR reports must be no lower than the approach chart minimums.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations, TDZ and mid RVR reports must be no lower than the approach chart minimums.

OR

O (2) CAT III operations are not authorized.

(3) Operations must be conducted in accordance with RVR report requirements in subparagraph d.

Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH No DH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

c. Required Field Length and Special Operational Equipment and Limitations.

(1) The destination runway length must be determined prior to passing the FAF to be at least 115 percent of the runway field length required by the provisions of International Civil Aviation Organization (ICAO) Annex 6, Operation of Aircraft, or the State of the Operator performance requirements for runway field length, whichever is more restrictive.

(2) The foreign air carrier must not begin the Final Approach Segment (FAS) of an IAP authorized in subparagraph a unless:

(a) The special equipment listed in Table 1 and, if applicable, Table 2, is installed and operational, and limitations listed or referenced in Table 1 and, if applicable, Table 2, are met; and

(b) If unforecast adverse weather or failures occur, the runway length needed for landing is determined prior to approach. The runway to be used, reported runway and weather conditions, AFM limitations, operational procedures and airplane equipment status should be considered.

d. Required RVR Reports. The foreign air carrier is authorized to conduct the operations described above in Table 1 and, if applicable, Table 2, if the following requirements for RVR reports are met. Only RVR reports for the runway of intended landing may be used.

(1) For all CAT II operations:

(a) All available RVR reports are controlling.

(b) The TDZ RVR report is required.

(c) The mid RVR report is not required.

(d) The rollout RVR report is required for all operations at 1200 RVR and below, except as specified in subparagraph d(1)(e).

(e) If the mid and rollout RVR reports are unavailable, the TDZ report must be at least 1400 RVR. If the rollout RVR report is unavailable, a mid or far end RVR report may be substituted. Mid RVR reports substituted for unavailable rollout reports must be 600 RVR or greater; far end reports substituted for unavailable rollout reports must be 300 RVR or greater. Far end RVR reports are advisory unless substituted for the rollout RVR report.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) All available RVR reports are required and controlling, except as specified below in subparagraphs d(2)(b), (c), and (d).

(b) For operations using an FP landing system with an FP or FO rollout system, either the mid or rollout RVR reporting system may be temporarily inoperative.

(c) For operations using an FO landing system with an FP or FO rollout system, any one RVR reporting system may be temporarily inoperative.

(d) Where four RVR reporting systems are installed (i.e., TDZ, mid, rollout, and far end sensors), the far end RVR report may provide advisory information to pilots or may be substituted for the rollout RVR report if that is not available.

(e) If the landing or rollout system degrades from FO to FP or the rollout system fails, the foreign air carrier is authorized to conduct operations in accordance with its MEL and AFM, using minimums no lower than those shown below (subparagraphs d(2)(e)(i)–(iii)) corresponding to the type of landing and/or rollout systems operable after the failure.

(i) Rollout system fails: TDZ and mid RVR reports no lower than 600 RVR.

(ii) FP landing system operable with FP or FO rollout system: TDZ RVR report no lower than 600 RVR and mid RVR report, if available, no lower than 400 RVR.

(iii) FO landing system with FP rollout system operable: TDZ and mid RVR reports, if available, no lower than 400 RVR.

OR

O (2) CAT III operations are not authorized.

e. Pilot Qualifications and Approved Training Programs. The minimums prescribed in this operations specification are authorized only for those pilots in command (PIC) and seconds in command (SIC) who have completed the foreign air carrier's approved training program and who are qualified for the operations authorized above in subparagraph a by one of the foreign air carrier's check pilots or State of the Operator CAA inspector in accordance with State of the Operator requirements.

f. CAT II Operations.

(1) The CAT II approach systems listed in Table 1 must be used at least to the approach procedure DH for standard CAT II operations.

(2) Unless authorized otherwise, standard CAT II minimums are TDZ 1200 RVR.

[Select option 1 to authorize TDZ 1000 RVR CAT II, or option 2 to authorize Special Authorization (SA) CAT II, or option 3 to authorize both TDZ 1000 RVR CAT II and SA CAT II, as applicable. It is not required to select an option.]

O (3) TDZ 1000 RVR CAT II. The foreign air carrier is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

OR

O (3) Special Authorization (SA) CAT II. The foreign air carrier is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard CAT II.

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the foreign air carrier is authorized to conduct operations under this SA CAT II subparagraph.

OR

O (3) TDZ 1000 RVR CAT II. The foreign air carrier is authorized to conduct standard CAT II operations to TDZ 1000 RVR. However, a CAT II approach to TDZ 1000 RVR minimums requires use of an autoland system or an FP HUD to be flown to touchdown.

O (4) Special Authorization (SA) CAT II. The foreign air carrier is authorized to conduct CAT II operations on certain ILS facilities that do not meet the equipment requirements of a U.S. Standard CAT II.

(a) Runway and approach lighting required in subparagraphs g(1)(c) and (d) below are modified for SA CAT II as follows:

(i) Runway lights: High Intensity Runway Lights (HIRL).

(ii) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), simplified short approach lighting system (SSALS), or medium intensity approach lighting system with runway alignment indicator lights (MALSR). Sequence flashing lights (SFL) may be inoperative.

(b) An SA CAT II approach requires use of an autoland system or an FP HUD. Either system must be flown to touchdown. These minimums may be no lower than 1200 RVR.

(c) For a standard CAT II instrument approach, if TDZ and/or centerline (CL) lighting are inoperative or the ALSF approach lights are operating in an SSALR or SSALS configuration, the foreign air carrier is authorized to conduct operations under this SA CAT II subparagraph.

g. Operating Limitations. The foreign air carrier must not begin the FAS of an IAP authorized in subparagraph a unless the latest controlling RVR reports for the landing runway are at or above the minimums authorized for the operation being conducted and all of the following conditions are met:

(1) The following ground-based equipment must be operational:

(a) Localizer (LOC) and glideslope (GS).

(b) Outer marker or DME facility used to define the FAF.

Note: A published waypoint or minimum GS intercept altitude fix may be used in lieu of an outer marker or DME fix.

(c) Runway lights: TDZ lights, centerline (CL) lights, or High Intensity Runway Lights (HIRL).

(d) Approach lights: Approach Lighting System with Sequenced Flashing Lights (ALSF), simplified short approach lighting system with runway alignment indicator lights (SSALR), or simplified short approach lighting system (SSALS). Sequence flashing lights (SFL) may be inoperative.

(e) The crosswind component on the landing runway is less than the AFM crosswind limitations, or 15 knots or less, whichever is more restrictive.

(f) Once established on the FAS, all operations conducted using automatic rollout systems or FP HUD rollout guidance may continue if any RVR report decreases below the authorized minimums.

(g) For CAT II Radar Altimeter minimums Not Authorized (RA NA)-only, an inner marker to identify the DH.

(2) The foreign air carrier must not conduct landing operations to any runway using autoland or FP HUD systems listed above in Table 1 or, if applicable, Table 2, unless the foreign air carrier determines that the flight control guidance system being used provides safe automatically (autoland) or manually (FP HUD) flown approaches and landings to be conducted at that runway.

(3) All CAT III and CAT II to 1000 RVR landing and subsequent ground operations must be conducted in accordance with the airport's low visibility operations plan (e.g., U.S. Surface Movement Guidance and Control System (SMGCS)).

[Only select this text if CAT III operations are authorized.]

(4) CAT III operations may be commenced or continued even if the approach lights become inoperative.

h. Missed Approach Requirements. A missed approach must be initiated when any of the following conditions exist:

(1) For all CAT II operations:

(a) After passing the FAF, the approach guidance system or any other airborne equipment required for the particular CAT II operation being conducted becomes inoperative or is disengaged.

(b) Before arriving at DH, any of the required elements of the CAT II ground system becomes inoperative.

(c) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(d) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

> **Note:** If the foreign air carrier is authorized enhanced flight vision system (EFVS) operations under 14 CFR part 91, § 91.176(a), the foreign air carrier may use the EFVS to meet the visual reference requirements of subparagraphs h(1)(c) and (d) above, but must still comply with all RVR and other limitations of this CAT II authorization.

[Select the applicable text from the following options. If CAT III operations are authorized, select option 1; if CAT III operations are not authorized, select option 2. An option must be selected.]

O (2) For all CAT III operations:

(a) If the pilot determines that touchdown cannot be safely accomplished within the TDZ.

(b) When any of the required runway lighting elements becomes inoperative prior to arriving at DH or AH, or prior to touchdown for airplanes without a rollout system.

(c) When any GS or LOC failure occurs prior to touchdown.

(d) The crosswind component at touchdown is greater than 15 knots or greater than the AFM's crosswind limitations, whichever is more restrictive.

(e) When a failure in an FP landing system occurs prior to touchdown, or a failure occurs in an FO system before reaching the AH.

(f) For CAT III operations without a rollout control system, no later than DH, if any controlling RVR is reported below the lowest authorized minimums.

(g) For CAT III operations using an FP landing system without a rollout control system or airplanes using an FP landing system and FP rollout control system:

(i) At the DH, if the pilot has not identified the required visual references with the TDZ or TDZ lights to verify that the airplane will touch down in the TDZ.

(ii) If, after passing the DH, visual reference is lost or a reduction in visual reference occurs, which prevents the pilot from continuing to verify that the airplane will touch down in the TDZ.

Note: If the foreign air carrier is authorized EFVS operations under § 91.176(a), the foreign air carrier may use the EFVS to meet the visual reference requirements of subparagraphs h(2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

OR

O (2) CAT III operations are not authorized.

i. Runway Restrictions. The foreign air carrier is authorized to conduct the operations in subparagraph a using autoland or FP HUD landing systems into the restricted U.S. facilities listed in Table 3 below.

Table 3 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations

j. Maintenance. The foreign air carrier must maintain the airplanes and equipment listed above in Table 1 and, if applicable, Table 2, in accordance with a Lower Landing Minimums (LLM) maintenance program approved by the State of the Operator.

Appendix I. Order 8900.1 Guidance Changes for 14 CFR Parts 91, 91K, 121, 125 (Including A125 LODA Holders), and 135

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 18 OPERATIONS SPECIFICATIONS

Section 5 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations

[…]

~~OPSPEC/MSPEC/LOA C059—CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: 14 CFR PARTS 91, 121, 125, 125M, 135, AND 91K OPERATORS) AND SPECIAL AUTHORIZATION CATEGORY I INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: PART 91 OPERATORS).~~

(All guidance under this heading deleted.)

OPSPEC/MSPEC/LOA C060—CATEGORY II AND CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: 14 CFR PARTS 91, 121, 125 (INCLUDING PART 125 LODA HOLDERS), 135, AND 91K OPERATORS) AND SPECIAL AUTHORIZATION CATEGORY I INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL: PART 91 OPERATORS).

NOTE: For Next Generation Air Transportation System (NextGen) tracking, applications for approvals for this paragraph must be entered in the NextGen Tracker as indicated in the general procedures section (Volume 3, Chapter 1, Section 1).

A. General. Category (CAT) II or CAT II and CAT III (CAT II/III) operations, including Special Authorization (SA) CAT II operations, are approved by issuance of OpSpec C060 to certificate holders for 14 CFR parts 121, 125, and 135; MSpec C060 to program managers for 14 CFR part 91K fractional ownership operations; and LOA C060 to operators for part 91 and part 125 LODA holder operations. LOA C060 also contains an optional subparagraph authorizing part 91 operators to conduct SA CAT I operations. Guidance for authorizing helicopter CAT II or CAT II/III operations can be found in Volume 4, Chapter 2, Sections 2 and 3. For 14 CFR part 129 operations, see Volume 12, Chapter 2.

B. Authorization Review for CAT II or CAT II/III Airplane Operations. Appropriate Flight Standards office (Flight Technologies and Procedures Division (AFS-400)) review and concurrence is required before:

1) Issuing OpSpec/MSpec/LOA C060 for all initial CAT II or CAT II/III authorizations for each operator/program manager and each airplane type used by that operator/program manager. This includes SA CAT II authorizations and SA CAT I authorizations for part 91 operators.

2) Amending C060 to include an airplane make, model, and series (M/M/S) new to the operator/program manager.

3) Reducing CAT II or CAT III operating minimums for each operator and airplane.

C. CAT II or CAT II/III Operational Evaluation. These operations are evaluated for authorization with reference to the following:

1) The current edition of Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach.

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

3) Volume 4, Chapter 2, Section 2, Safety Assurance System: Approval of U.S. Operators for Special Authorization Category I and All Category II/III Operations—Parts 91 (Large Aircraft), 91K, 121, 125, and 135.

4) Volume 4, Chapter 2, Section 3, Approval of Small Category A Aircraft for Category II Operations—Part 91.

5) Volume 4, Chapter 2, Section 6, Safety Assurance System: Category II Operations.

6) Volume 4, Chapter 2, Section 7, Safety Assurance System: Category III Operations.

7) Applicable Lower Landing Minimums (LLM) maintenance program approved by the assigned Avionics inspector in accordance with Volume 4, Chapter 2, Section 10, Safety Assurance System: Maintenance/Inspection Programs for Low Approach and Landing Minimums.

D. Using OpSpec/MSpec/LOA C060 Templates. The C060 template is organized into sections applying to CAT II operations, CAT III operations, and sections applying to both operations. Standard 1200 Runway Visual Range (RVR) CAT II authorization is assumed for all operators receiving C060; 1000 RVR CAT II, SA CAT II and CAT III authorizations are optional. SA CAT I authorization is also optional for part 91 operators and included in the LOA template for selection as needed. SA CAT I authorization for operators under other 14 CFR parts is available in OpSpec/MSpec/LOA C052. See subparagraph Q below for discussion of SA CAT I. References below are to subparagraphs in OpSpec/MSpec C060. LOA C060 references would be to corresponding numbered subparagraphs.

1) Begin the authorization by selecting either “Category II” or “Category II and III” in subparagraph a (subparagraph 1 in LOAs).

2) In subparagraph b (subparagraph 2 in LOAs), Authorized Approach and Landing Minimums, for CAT II/III operators, select option 1, “For all CAT III operations.” For CAT II-only operators, select option 2, “CAT III operations are not authorized.”

3) Fill in Table 1 and, if applicable, Table 2, in accordance with subparagraphs F, G, H, and I below.

4) In subparagraph d (subparagraph 4 in LOAs), Required RVR Reports, for CAT II/III operators, select option 1, "For all CAT III operations." For CAT II-only operators, select option 2, "CAT III operations are not authorized."

5) For subparagraph f (subparagraph 6 in LOAs), CAT II Operations, in addition to the standard text of 1200 RVR CAT II, there are three optional texts to consider for authorization. Select option 1 for touchdown zone (TDZ) 1000 RVR CAT II, option 2 for SA CAT II, or option 3 for both TDZ 1000 RVR CAT II and SA CAT II. Table 1 must contain appropriate selections for these additional CAT II authorizations. To authorize only Standard CAT II at 1200 RVR, do not select any additional options. See subparagraph M below for further discussion.

6) In subparagraph g (subparagraph 7 in LOAs), Operating Limitations, select subparagraph g(4) for CAT II/III operators (subparagraph 7d in LOAs).

7) In subparagraph h (subparagraph 8 in LOAs), Missed Approach Requirements, for CAT II/III operators, select option 1, "For all CAT III operations." For CAT II-only operators, select option 2, "CAT III operations are not authorized."

8) Subparagraph l (subparagraph 12 in the LOA for part 125 LODA holders), Engine Inoperative Operations, is an optional authorization for CAT II and/or CAT III operations with an inoperative engine. If the operator does not desire this option, place "NA" in Table 5 of C060. See subparagraph P below for further discussion.

9) Subparagraph m (subparagraph 13 or 14 in LOAs), Hybrid CAT III Operations, is a harmonized International Civil Aviation Organization (ICAO) term describing an optional authorization for hybrid CAT III operations. This authorization allows minimums as low as TDZ RVR 400 (125m), mid RVR 400 (125m) and rollout RVR 300 (75m). Currently, this option is not generally available. Proper airplane equipment and special crew training are required for this operation. Authorization is obtained through coordination with AFS-400 and the Air Transportation Division (AFS-200), or the General Aviation and Commercial Division (AFS-800), as appropriate. Hybrid CAT III authorization is not available for part 129 operators.

E. Approved Airplanes and Operations.

1) An operator's particular airplanes and operational minimums are authorized by entering the following information in Table 1 and, if applicable, Table 2 of C060:

- CAT II or CAT II/III approved airplane M/M/S (see subparagraph F);
- Approach and landing systems used (see subparagraph G);
- Operational minimums (see subparagraph H); and
- Special equipment or limitations (see subparagraph I).

2) Figures 3-254 and 3-255 below illustrate the standard approach/landing system and landing minimums entries used in C060 Table 1 for CAT II and Table 2 for CAT III authorizations.

Figure 3-254. Sample C060 Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Figure 3-255. Sample C060 Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

F. CAT II or CAT II/III Airplane Approval. Airplanes must have Airplane Flight Manual (AFM) provisions stating an acceptable level of CAT II or CAT III capability as demonstrated to the FAA, or demonstrated to an authority recognized by the FAA as having acceptable equivalent CAT II or CAT III airworthiness criteria (e.g., European Aviation Safety Agency (EASA) CS-AWO, Transport Canada). The only acceptable method of demonstrating that an airplane is Airworthy for CAT II or CAT III operations is by approval under the type certificate (TC) or Supplemental Type Certificate (STC).

1) An operator's airplane M/M/S will populate Table 1 of C060 for CAT II operations and, where authorized, Table 2 for CAT III operations based on the assignment of the CAT II and CAT III authorizations to specific airplanes in the Operator—Aircraft listing.

2) The approved AFM (or Airplane Flight Manual Supplement (AFMS)) typically contains a statement that the airborne systems and equipment meet performance requirements, a statement regarding reliability and/or redundancy, and affirmation that such systems and equipment have been demonstrated to be eligible for CAT II or CAT III operations.

a) CAT II airplanes typically have an AFM or AFMS statement showing compliance with the airworthiness performance and integrity criteria found in AC 120-29.

NOTE: Airplanes used for SA CAT II or 1000 RVR CAT II operations require guidance or flight control systems (fail passive (FP) Head-Up Display (HUD) or autoland) showing compliance with the airworthiness and performance criteria found in AC 120-28.

b) CAT III airplanes typically have an AFM or AFMS statement showing compliance with the airworthiness performance and integrity criteria found in AC 120-28.

G. Approach/Landing Systems.

1) The CAT II approach/landing system must be specified for each airplane listed in Table 1 of C060:

a) Autopilot: autopilot approach coupler used to decision height (DH), followed by manual control landing.

b) HUD: CAT II certified HUD providing guidance to DH, flown under manual control.

c) FP HUD: CAT III certified FP HUD providing guidance at least to touchdown, flown under manual control.

d) Autoland: any certified autoland system.

e) Select the appropriate phrase for each M/M/S to place in the Approach/Landing System column: Autopilot, HUD, FP HUD or Autoland. Any of the above approach/landing systems may be selected for 1600 RVR or 1200 RVR CAT II operations. If an operator desires to use two systems during approach (e.g., HUD monitored autopilot), only the primary control system in use needs to be listed. FP HUD or Autoland must be selected if operators conduct SA CAT II or 1000 RVR CAT II operations.

2) The CAT III approach/landing and rollout systems must be specified for each airplane listed in Table 2 of C060:

a) If the operator is approved to conduct only CAT II operations (i.e., CAT III not authorized), the table will automatically populate with “NA.”

b) Approach/landing systems:

1. FP HUD.

2. FP Autoland: any fail passive autoland system.

3. FO Autoland: fail operational autoland system.

c) Rollout systems:

1. None: no rollout guidance or automatic rollout system.

2. FP: any fail passive rollout system.

3. FO: fail operational automatic rollout system.

d) Select the appropriate phrase for each M/M/S to place in the Approach/Landing System column: FP HUD, FP Autoland or FO Autoland. Also select the appropriate rollout system: None, FP, or FO.

H. Operational Minimums.

1) CAT II Minimums. Table 3-133 below is a summary of the required RVR minimums for CAT II operations.

Table 3-133. Category II Operating Minimums

CAT II RVR Minimums			
Type of Operation	**TDZ RVR**	**Mid RVR**	**Rollout RVR**
Standard CAT II	1600 (500 m)	600 (175 m)#	300 (75 m)#
Standard CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)
Standard CAT II to 1000 RVR	1000 (300 m)	600 (175 m)#	300 (75 m)
Special Authorization CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)

Note: # = If available

a) Select TDZ/Mid/RO RVR CAT II minimums as follows:

1. Select 1600/600/300 for new CAT II operators during the 6-month Operator Use Suitability Demonstration or as a final authorization, if desired by the operator or the principal operations inspector (POI).

NOTE: The POI should issue an initial, interim authorization using the higher minimums, and reissue C060 authorizing lower minimums upon completion of the approval demonstration phases. Operator approval requirements are shown in Volume 4, Chapter 2, Section 2, paragraph 4-194, CAT II/III ILS Operator Authorization Process.

2. Select 1200/600/300 for a Standard CAT II authorization. A 100 foot (ft) DH should be selected in Table 1 of C060.

3. Select 1000/600/300 for a Standard CAT II authorization to conduct 1000 RVR CAT II operations. A 100 ft DH should be selected in Table 1. This option requires an autoland or FP HUD to be flown to touchdown.

b) No additional lines of minimums need to be selected for the authorization of SA CAT II operations. SA CAT II minimums and DH are 1200 RVR and 100 ft.

2) CAT III Minimums. Table 3-134 below is a summary of the lowest allowable RVR minimums associated with CAT III approach and landing systems. Operators may elect to use higher values for any RVR minimum.

Table 3-134. Category III Operating Minimums

Landing System	Rollout System	TDZ RVR	Mid RVR	Rollout RVR
FP (CAT IIIa)	None	700 (200 m)	700 (200 m)	300 (75 m)
FP or FO	None	600 (175 m)	600 (175 m)	300 (75 m)
FP	FP or FO	600 (175 m)	400 (125 m)	300 (75 m)
FO	FP	400 (125 m)	400 (125 m)	300 (75 m)
FO	FO	300 (75 m)	300 (75 m)	300 (75 m)

a) When the operator’s airplanes have FP landing systems or have been demonstrated for CAT IIIa operations with AFM statements describing compliance with only AC 120-28C criteria (or earlier editions):

1. Select 700/700/300; or

2. Select 600/600/300 for airplanes having FP landing systems that have been authorized RVR 600 minimums under AC 120-28D, paragraph 4.3.7, Category IIIa.

b) When the operator’s airplanes have an AFM statement showing compliance with AC 120-28D criteria (or subsequent editions) or airplanes with fail operational (FO) landing and FO or FP rollout systems and an AFM statement showing compliance with AC 120-28C criteria (or earlier editions):

1. Select 600/400/300 for airplanes using FP landing and FP or FO rollout systems;

2. Select 400/400/300 for airplanes using FO landing and FP rollout systems; or

3. Select 300/300/300 for airplanes using FO landing and FO rollout systems.

I. Special Operational Equipment and Limitations.

1) Equipment that is explicitly required by the airplane certification regulations (14 CFR parts 23 and 25), the operating regulations (parts 91, 91K, 121, 125, and 135), and/or the approved AFM or AFMS *should not be listed* in Table 1 or Table 2 of C060. The standard text of C060 requires that this equipment be installed and operational.

2) Enter into Table 1 and, if applicable, Table 2 of C060 all additional equipment for the M/M/S and kind(s) of CAT II/III operations authorized. Include additional equipment required by any of the following:

- AC 120-29,
- AC 120-28,
- TC or STC, and
- Appropriate Flight Standards office (AFS-400) concurrence letter.

3) If the AFM or AFMS describes acceptable performance both with and without certain items of equipment (that are not explicitly required by AC 120-29 or AC 120-28), it must be determined how the operator/program manager intends to conduct CAT II/III operations and train flightcrews with those items of equipment. If the operator/program manager proposes to conduct operations both with and without certain equipment (such as autothrottle, autopilot), flightcrews must be trained for both situations, and the equipment does not need to be listed in Table 1 or Table 2 of C060.

J. Runway Field Length Requirements.

1) For all CAT II or CAT III operations, the required field length (determined prior to takeoff) is at least 1.15 times the field length required by:

- Part 91K, § 91.1037(b) and the AFM;
- Part 121, § 121.195(b);
- The AFM for parts 91 and 125; or
- Part 135, § 135.385(b).

2) Additional consideration of landing field length is not normally required after takeoff. If unforecast adverse weather or failures occur, the crew and aircraft dispatchers should consider any consequences that may result from a decision to make a CAT II or CAT III landing. The runway length needed in these changed circumstances must be determined considering the runway in use, runway conditions, current weather, AFM limitations, operational procedures, and airplane equipment status at the time of landing.

3) Runway field length requirements for parts 121 and 135 are contained in OpSpec C054, Special Limitations and Provisions for Instrument Approach Procedures and IFR Landing Minimums. Any part 121 or 135 operators issued OpSpec C060 *must* also be issued OpSpec C054.

K. Airplane Maintenance. For CAT II or CAT III operations authorizations, the operator or program manager must have an approved LLM maintenance program, as described above in subparagraph C7). The maintenance program should detail a specific maintenance interval, periodic tests, and inspections required on systems and equipment used for LLM. The maintenance program should identify or contain system and equipment reliability tracking methods derived from 14 CFR part 119 requirements.

L. Flightcrew Qualifications. A pilot in command (PIC) who has not met the requirements of § 91.1039(c), § 121.652, § 135.225(e), or § 125.379, as appropriate, must use the high minimum pilot RVR landing minimum equivalents, as determined from the table in OpSpec/MSpec/LOA C054. The provisions of an exemption to these requirements may also apply.

M. Authorized CAT II Approaches.

1) Standard CAT II. The operator may be authorized for up to three different minimums for use with published 14 CFR part 97 approaches: 1600 RVR, 1200 RVR, and 1000 RVR. Allowable minimums depend on the availability of RVR sensors and availability and use of required airplane equipment.

a) Minimums of TDZ 1600 RVR and TDZ 1200 RVR require the flightcrew to use an approach coupler or to fly at least to DH under manual control using a HUD for flight guidance. A manually flown landing is assumed and does not need to be specified. Autoland or HUD-to-touchdown operations (other than CAT II/III) may be authorized if the operators are also issued OpSpec/MSpec/LOA C061 or OpSpec/MSpec/LOA C062. This optional authorization is applicable to parts 91K, 121, and 135 operators.

b) Minimums of 1000 RVR, as published via a chart note on the part 97 procedure, require the flightcrew to use autoland or to fly under manual control using an FP HUD to touchdown.

1. For manual control using a HUD to touchdown, the FP HUD must be flown in the AIII approach mode.

2. The flightcrew has been trained at the lower visibilities before they can be authorized. If the flightcrew is currently authorized CAT III operations, no further training is required for this authorization.

c) Operators authorized SA CAT II, as described in subparagraph M2) below, may also be authorized to conduct approaches to standard CAT II facilities when the TDZ and/or centerline (CL) lights are inoperative or when the Approach Lighting System with Sequenced Flashing Lights (ALSF) is downgraded (such as no sequence flashing lights (SFL), or when operated as simplified short approach lighting system with runway alignment indicator lights

(SSALR) or simplified short approach lighting system (SSALS)). They must comply with all requirements in subparagraph M2), using minimums appropriate to the RVR available and using autoland or manual (HUD) to touchdown.

2) SA CAT II. In addition to the Standard CAT II operations authorized by OpSpec/MSpec/LOA C060, SA CAT II operations can be authorized to qualifying runways that do not meet the performance or ground equipment requirements normally associated with a compliant CAT II operation (e.g., TDZ lighting, CL lighting, or ALSF 1 and 2).

a) The instrument landing system (ILS) facilities used are CAT I ILS installations that meet the glideslope (GS) and Localizer (LOC) signal quality requirements of CAT II facilities. The required increase in airplane capabilities of HUD or autoland-to-touchdown mitigates the reduced-lighting requirements.

b) SA CAT II requires the flightcrew to use autoland or to fly under manual control using an FP HUD-to-touchdown. These minimums may be no lower than 1200 RVR.

N. Crosswind Limitations. The crosswind component on the landing runway must be 15 knots or less, unless the AFM's crosswind limitations are more restrictive. This should be reflected in the approved training program and flightcrew bulletins.

O. Authorized CAT II or CAT III Airports and Runways. All foreign airports and runways approved for CAT II or III operations and restricted U.S. airports and runways approved for CAT II or III operations must be specifically identified and listed in OpSpec/MSpec/LOA C060 Table 3. The list of approved foreign CAT II and III airports and runways can be found at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/cat_ils_info/.

NOTE: Operators are authorized to conduct any CAT II or III operations at all domestic airports and runways using an approved part 97 CAT II/III instrument approach procedure (IAP), unless the runway is on AFS-400's Restricted/Nonstandard U.S. Facilities Approved for Category II & Category III Operations list at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/cat_ils_info/, or unless a restrictive Notice to Airmen (NOTAM) is issued for that approach.

1) Foreign Airports and Runways. CAT II/III operations may be conducted at foreign airports and runways when the selected runways are listed in Table 3 of OpSpec/MSpec/LOA C060 (see Figure 3-256, Sample C060 Table 3 – Foreign Airports and Runways).

NOTE: CAT II or III approaches in foreign States at airports that are controlled by the U.S. Department of Defense (DOD) and that meet FAA CAT II/III criteria do not need to be included on the approved foreign facilities list and do not need to be listed in Table 3 of OpSpec/MSpec/LOA C060.

2) Restricted/Nonstandard U.S. Facilities. The U.S. ILS facilities provided in the AFS-400 Restricted U.S. Facilities list are approved only for the specific airplanes listed when conducting CAT III operations or CAT II operations using autoland or FP HUD-to-touchdown.

The characteristics of the pre-threshold terrain, runway TDZ slope, or steep GS at these facilities may cause abnormal performance in flight control systems. Additional analysis and/or flight demonstrations are typically required for each airplane type before approval of CAT II/III minimums at each runway. Publication of a part 97 Standard Instrument Approach Procedure (SIAP) or additional operators and their airplanes may be approved by the appropriate Flight Standards office (AFS-400), as provided in AC 120-28, Appendix 8, Irregular Terrain Assessment. Approved airplanes are equipped with either autoland or FP HUD flight guidance equipment. The restrictions at U.S. facilities for the operators are provided as selectables for listing in Table 4 of OpSpec/MSpec/LOA C060 (see Figure 3-257 below).

Figure 3-256. Sample C060 Table 3 – Foreign Airports and Runways

Approach Category, Airport Name/Identifier, Runway(s)	Limitations
CAT II Aarhus; Denmark; EKAH; CAT II RWY: 28L	
CAT II/III Almaty; Kazakhstan; UAAA; CAT II and III RWY: 23R	
CAT II/III Ankara/Esenboga; Turkey; LTAC; CAT II RWYs: 3L/3R; CAT III RWY: 3R	

Figure 3-257. Sample C060 Table 4 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10L; RVR 300	Airplanes approved: A319, A320, B757, and B767
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10R; RVR 600 and RVR 300	Restricted to 600 RVR until less-than 600 RVR SMGCS operations are approved. Airplanes approved RVR 600: B757 and B767. Airplanes approved RVR 300: A319 and A320.

P. Engine-Inoperative Operations. The operator may be authorized for engine-inoperative CAT II or CAT III operations in accordance with the AFM, AC 120-29, and AC 120-28. Airplane M/M/S, operational requirements, and limitations must be listed in Table 5 of C060 (see Figure 3-258, Sample C060 Table 5 – Engine Inoperative Operations).

1) With preplanned engine-inoperative CAT III capability, airports and minimums that otherwise may not be considered acceptable for use could be selected by the pilot or operator without having to subsequently justify their use based on emergency authority. This capability also has the advantage of allowing for full preassessment of the airplane capability and engine-inoperative airplane configurations (e.g., flap settings, electrical system capability, and hydraulic system capability), approach procedure characteristics, missed approach performance, and other factors that may be difficult to assess in real time if not previously assessed.

2) This capability can also permit an operator some additional flexibility in selecting alternate airports. Authorization to use CAT II or CAT III alternate airport weather minimums is given in OpSpec C055 and is based on CAT III engine-inoperative authorization in Table 5 of C060 (see Figure 3-258).

3) Authorization to conduct engine-inoperative CAT II or CAT III operations is based on the AFM and approved operator procedures and training. AC 120-29 and AC 120-28 describe, in detail, the requirements and considerations necessary for authorization, which include airplane performance, configuration and systems requirements, crew training (if applicable), and dispatcher and crew preflight and en route planning and decisionmaking.

4) Operational authorizations are in accordance with AC 120-29 or AC 120-28. Three cases are considered for this authorization:

a) During preflight planning, an operator with CAT III engine-inoperative operational authorization may consider engine-inoperative CAT II or CAT III capability in planning flights for a takeoff alternate, en route Extended Operations (ETOPS) alternate, redispatch alternate, destination, or destination alternate.

b) With landing after engine failure en route authorization, the operator may initiate an engine-inoperative CAT II or CAT III approach under the conditions specified in AC 120-29 or AC 120-28.

c) With landing after engine failure during approach authorization, the operator may continue a CAT II or CAT III approach after passing the final approach fix (FAF), unless required by the AFM to discontinue the approach in order to reconfigure the airplane.

Figure 3-258. Sample C060 Table 5 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations
B777	Preflight planning. Landing after engine failure en route. Landing after engine failure during approach.	Flaps 20 or 30. Minimum TCH: 40 feet.
B747	Preflight planning. Landing after engine failure en route.	Flaps 25 or 30. Minimum TCH: 42 feet. Rudder trim or manual control required until below 1500 feet RA with LAND 3. 5 kt crosswind limit with rudder ratio system inoperative and engine inoperative.

Q. SA CAT I for Part 91. The part 91 LOA C060 contains selectable text that authorizes SA CAT I ILS approaches to runways without TDZ or runway centerline (RCL) lights with a radar altimeter (RA) DH as low as 150 ft and a visibility minimum as low as RVR 1400 when using a HUD to DH. This selectable text is only available in the part 91 LOA. SA CAT I authorization for operators under other 14 CFR parts is available in OpSpec/MSpec/LOA C052. The operator must meet all of the following requirements:

1) Airplane Requirements. To be approved for SA CAT I, each airplane must be certified and maintained for CAT II operations. Those airplanes and equipment must be listed in Table 1 of OpSpec C060. The authorized airplane(s) must be equipped with a HUD that is approved for CAT II or CAT III operations.

2) Training Requirements. The flightcrew must be current and qualified for CAT II operations. The flightcrew must demonstrate proficiency in ILS approaches and landings to this minimum or to a lower minimum using the HUD prior to commencing any SA CAT I operations. This requirement applies both to initial eligibility for SA CAT I as well as recurrent training.

3) Operational Requirements.

a) The flightcrew must use the HUD to DH in a mode used for CAT II or CAT III operations. This mode provides greater lateral and vertical flightpath accuracy and more sensitive alarm limits.

b) The flightcrew must use the HUD to DH, or to the initiation of missed approach, unless adequate visual references with the runway environment are established that allow safe continuation to a landing. Should the HUD malfunction during the approach, the flightcrew must execute a missed approach unless visual reference to the runway environment has been established.

c) The crosswind component on the landing runway must be less than the AFM crosswind limitations or 15 knots or less, whichever is more restrictive.

d) The part 97 SIAP must have a published SA CAT I minimum.

e) Unlike other CAT I approaches, the mid RVR report may not be substituted for the TDZ RVR report when using SA CAT I minimums.

f) Single-pilot operators are prohibited from using SA CAT I landing minimums.

[…]

Appendix J. Order 8900.1 Guidance Changes for 14 CFR Part 129

VOLUME 12 INTERNATIONAL AVIATION

CHAPTER 2 FOREIGN AIR CARRIERS OPERATING TO THE UNITED STATES AND FOREIGN OPERATORS OF U.S.-REGISTERED AIRCRAFT ENGAGED IN COMMON CARRIAGE OUTSIDE THE UNITED STATES

Section 5 Part 129 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations

[…]

~~OPSPEC C059—CATEGORY II INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL).~~

(All guidance under this heading deleted.)

OPSPEC C060—CATEGORY II AND CATEGORY III INSTRUMENT APPROACH AND LANDING OPERATIONS (OPTIONAL). The FAA evaluates Category (CAT) II and CAT III operations in accordance with the current editions of Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, and AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout; equivalent European Aviation Safety Agency (EASA) criteria; or the International Civil Aviation Organization (ICAO) Doc 9365/AN910, Manual of All-Weather Operations. The FAA authorizes CAT II and CAT III operations by issuing OpSpec C060. Each airplane type make, model, and series (M/M/S) used in CAT II or CAT III operations must be listed in OpSpec C060 subparagraph b, Authorized Approach and Landing Minimums, along with the decision height (DH)/alert height (AH), and lowest Runway Visual Range (RVR) authorized. Foreign air carriers requesting authorization for CAT II or CAT III operations at U.S. airports should meet the following criteria.

A. Using the OpSpec C060 Template. The C060 template is organized into sections applying to CAT II operations, CAT III operations and sections applying to both operations. Standard 1200 RVR CAT II authorization is assumed for all foreign air carriers receiving C060; 1000 RVR CAT II, Special Authorization (SA) CAT II and CAT III authorizations are optional.

1) Begin the authorization by selecting either “Category II” or “Category II and III” in subparagraph a.

2) In subparagraph b, Authorized Approach and Landing Minimums, for CAT II/III operators, select option 1, “For all CAT III operations.” For CAT II-only operators, select option 2, “CAT III operations are not authorized.”

3) Fill in Table 1 and, if applicable, Table 2 of OpSpec C060 in accordance with subparagraphs C, D, E, and F below.

4) In subparagraph d, Required RVR Reports, for CAT II/CAT III operators, select option 1, "For all CAT III operations." For CAT II-only operators, select option 2, "CAT III operations are not authorized."

5) For subparagraph f, CAT II Operations, in addition to standard text of 1200 RVR CAT II, there are three optional texts to consider for authorization. Select option 1 for TDZ 1000 RVR CAT II, option 2 for SA CAT II, or option 3 for both TDZ 1000 RVR CAT II and SA CAT II. Table 1 of C060 must contain appropriate selections for these additional CAT II authorizations. To authorize only Standard CAT II at 1200 RVR, do not select any additional options. See subparagraph J below for further discussion.

6) In subparagraph g, Operating Limitations, select subparagraph g(4) for CAT II/III foreign air carriers.

7) In subparagraph h, Missed Approach Requirements, for CAT II/III operators, select option 1, "For all CAT III operations." For CAT II-only operators, select option 2, "CAT III operations are not authorized."

B. Approved Airplanes and Operations. An operator's particular airplanes and operational minimums are authorized by entering the following information in C060 Table 1 for CAT II and, if applicable, Table 2 for CAT III authorizations:

- CAT II or CAT II/III approved airplane M/M/S (see subparagraph C),
- Approach and landing systems used (see subparagraph D),
- Operational minimums (see subparagraph E), and
- Special equipment or limitations (see subparagraph F).

NOTE: Figures 12-20 and 12-21 below illustrate the standard approach/landing system and landing minimums entries used in C060 Table 1 for CAT II and Table 2 for CAT III authorizations.

Figure 12-20. Sample C060 Table 1 – CAT II Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	DH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	Autopilot HUD FP HUD Autoland	150 DH 100 DH	1600/600/300 1200/600/300 1000/600/300	

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; NA = Not Applicable.

Figure 12-21. Sample C060 Table 2 – CAT III Airplane Systems and Landing Minimums

Airplane M/M/S	Approach / Landing System*	Rollout System*	DH / AH	TDZ / Mid / RO RVR	Special Operational Equipment and Limitations
	FP HUD FP Autoland FO Autoland	None FP FO	50 DH 30 DH 200 AH 100 AH 50 AH No DH	700/700/300 600/600/300 600/400/300 400/400/300 300/300/300	

Note: * FP HUD = CAT III certified Head-Up Display; FP = Fail Passive Landing or Rollout Control System; FO = Fail Operational Landing or Rollout Control System; NA = Not Applicable.

C. CAT II or CAT II/III Airplane Approval. Airplanes must have Airplane Flight Manual (AFM) provisions stating an acceptable level of CAT II or CAT III capability as demonstrated to the FAA, or demonstrated to an authority recognized by the FAA as having acceptable equivalent CAT II or CAT III airworthiness criteria (e.g., EASA CS-AWO, Transport Canada). The only acceptable method of demonstrating that an airplane is airworthy for CAT II or CAT III operations is by approval under the type certificate (TC) or Supplemental Type Certificate (STC).

1) An operator's airplane M/M/S will populate Table 1 of C060 for CAT II operations and, where authorized, Table 2 for CAT III operations based on the assignment of the CAT II and CAT III authorizations to specific airplanes in the Operator—Aircraft listing.

2) The approved AFM (or Airplane Flight Manual Supplement (AFMS)) typically contains a statement that the airborne systems and equipment meet performance requirements, a statement regarding reliability and/or redundancy, and affirmation that such systems and equipment have been demonstrated to be eligible for CAT II or CAT III operations.

a) CAT II airplanes typically have an AFM or AFMS statement showing compliance with the airworthiness performance and integrity criteria found in AC 120-29.

NOTE: Airplanes used for SA CAT II or 1000 RVR CAT II operations require guidance or flight control systems (fail passive (FP) Head-Up Display (HUD) or autoland) showing compliance with the airworthiness and performance criteria found in AC 120-28.

b) CAT III airplanes typically have an AFM or AFMS statement showing compliance with the airworthiness performance and integrity criteria found in AC 120-28.

D. Approach/Landing Systems.

1) The CAT II approach/landing system must be specified for each airplane listed in Table 1 of C060.

a) Autopilot: autopilot approach coupler used to DH, followed by manual control landing.

b) HUD: CAT II certified HUD providing guidance to DH, flown under manual control.

c) FP HUD: CAT III certified FP HUD providing guidance at least to touchdown, flown under manual control.

d) Autoland: any certified autoland system.

e) Select the appropriate phrase for each M/M/S to place in the CAT II Approach/Landing System row: Autopilot, HUD, FP HUD or Autoland. Any of the above approach/landing systems may be selected for 1600 RVR or 1200 RVR CAT II operations. If an operator desires to use two systems during approach, e.g., HUD monitored autopilot; only the primary control system in use need be listed. FP HUD or Autoland must be selected if foreign air carriers conduct SA CAT II or 1000 RVR CAT II operations.

2) The CAT III approach/landing and rollout systems must be specified for each airplane listed in Table 2 of C060.

a) If the operator is approved to conduct only CAT II operations (i.e., CAT III not authorized), the table will automatically populate with "NA."

b) Approach/landing systems:

1. FP HUD.

2. FP Autoland: any fail passive autoland system.

3. FO Autoland: fail operational autoland system.

c) Rollout systems:

1. None: no rollout guidance or automatic rollout system.

2. FP: any fail passive rollout system.

3. FO: fail operational automatic rollout system.

d) Select the appropriate phrase for each M/M/S to place in the CAT III Approach/Landing System column: FP HUD, FP Autoland or FO Autoland. Also select the appropriate rollout system: None, FP, or FO.

E. Operational Minimums.

1) CAT II Minimums. Table 12-3 below is a summary of the required RVR minimums for CAT II operations.

Table 12-3. Category II Operating Minimums

CAT II RVR Minimums			
Type of Operation	**TDZ RVR**	**Mid RVR**	**Rollout RVR**
Standard CAT II	1600 (500 m)	600 (175 m)#	300 (75 m)#
Standard CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)
Standard CAT II to 1000 RVR	1000 (300 m)	600 (175 m)#	300 (75 m)
Special Authorization CAT II	1200 (350 m)	600 (175 m)#	300 (75 m)

Note: # = If available

a) Select Touchdown Zone (TDZ)/Mid/RO RVR CAT II minimums as follows:

1. Select 1600/600/300 for new CAT II foreign air carriers during the 6-month Operator Use Suitability Demonstration or as a final authorization if desired by the operator or the principal operations inspector (POI).

NOTE: The POI should issue an initial, interim authorization using the higher minimums, and reissue C060 authorizing lower minimums upon completion of the approval demonstration phases. Foreign air carrier approval requirements are shown in Volume 4, Chapter 2, Section 8, paragraph 4-365, Foreign Air Carrier CAT II/III Operations in the United States.

2. Select 1200/600/300 for a Standard CAT II authorization. A 100 ft DH should be selected.

3. Select 1000/600/300 for a Standard CAT II authorization to conduct 1000 RVR CAT II operations. A 100 ft DH should be selected in Table 1 of C060. This option requires an autoland or FP HUD to be flown to touchdown.

b) No additional lines of minimums need to be selected for the authorization of SA CAT II operations. SA CAT II minimums and DH are 1200 RVR and 100 ft.

2) CAT III Minimums. Table 12-4 below is a summary of the lowest allowable RVR minimums associated with CAT III approach and landing systems. Foreign air carriers may elect to use higher values for any RVR minimum.

Table 12-4. Category III Operating Minimums

Landing System	Rollout System	TDZ RVR	Mid RVR	Rollout RVR
FP (CAT IIIa)	None	700 (200 m)	700 (200 m)	300 (75 m)
FP or FO	None	600 (175 m)	600 (175 m)	300 (75 m)
FP	FP or FO	600 (175 m)	400 (125 m)	300 (75 m)
FO	FP	400 (125 m)	400 (125 m)	300 (75 m)
FO	FO	300 (75 m)	300 (75 m)	300 (75 m)

a) When the foreign air carrier's airplanes have FP landing systems, or have been demonstrated for CAT IIIa operations, with AFM statements describing compliance with only AC 120-28C criteria (or earlier editions):

1. Select 700/700/300; or

2. Select 600/600/300 for airplanes having FP landing systems that have been authorized RVR 600 minimums under AC 120-28D, paragraph 4.3.7, Category IIIa.

b) When the operator's airplanes have an AFM statement showing compliance with AC 120-28D criteria (or subsequent editions), or airplanes with flight operational (FO) landing and FO or FP rollout systems and an AFM statement showing compliance with AC 120-28C criteria (or earlier editions):

1. Select 600/400/300 for airplanes using FP landing and FP or FO rollout systems;

2. Select 400/400/300 for airplanes using FO landing and FP rollout systems; or

3. Select 300/300/300 for airplanes using FO landing and FO rollout systems.

F. Special Equipment or Limitations.

1) Equipment that is explicitly required by the airplane certification regulations and/or the approved AFM or AFMS *should not be listed* in Table 1 or Table 2 of C060. The standard text of C060 requires that this equipment be installed and operational.

2) Enter into Table 1 and, if applicable, Table 2 of C060 all additional equipment for the M/M/S and kind(s) of CAT II/III operations authorized. Include additional equipment required by any of the following:

- AC 120-29,
- AC 120-28, and
- TC or STC.

3) If the AFM or AFMS describes acceptable performance both with and without certain items of equipment (that are not explicitly required by AC 120-29 or AC 120-28), it must be determined how the foreign air carrier manager intends to conduct CAT II/III operations and train flightcrews with those items of equipment. If the foreign air carrier proposes to conduct operations both with and without certain equipment (such as autothrottle, autopilot), flightcrews must be trained for both situations and the equipment does not need to be listed in Table 1 or Table 2 of C060.

G. Runway Field Length Requirements.

1) For all CAT II or CAT III operations, the required field length is 1.15 times the field length required by the provisions of ICAO Annex 6, Operation of Aircraft, or the State of the Operator performance requirements for runway field length, whichever is more restrictive.

2) Additional consideration of landing field length is not normally required after takeoff. If unforecast adverse weather or failures occur, the crew should consider any consequences that may result from a decision to make a CAT II or CAT III landing. The runway length needed in these changed circumstances must be determined considering the runway in use, runway conditions, current weather, AFM limitations, operational procedures, and airplane equipment status at the time of landing.

H. Airplane Maintenance. The foreign air carrier must maintain the airplanes and equipment listed in OpSpec C060 Table 1 and, if applicable, Table 2, in accordance with a lower landing minimums maintenance program approved by the State of the Operator.

I. Flightcrew Qualifications. The minimums prescribed in OpSpec C060 are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the foreign air carrier's approved training program and who are qualified for the operations authorized in subparagraph a of C060 by one of the foreign air carrier's check airmen or State of the Operator Civil Aviation Authority (CAA) inspector in accordance with State of the Operator requirements.

J. Authorized CAT II Approaches.

1) Standard CAT II. The foreign air carrier may be authorized for up to three different minimums for use with published 14 CFR part 97 approaches: 1600 RVR, 1200 RVR, and 1000 RVR. Allowable minimums depend on the availability of RVR sensors and availability and use of required airplane equipment.

a) Minimums of TDZ 1600 RVR and TDZ 1200 RVR require the flightcrew to use an approach coupler or to fly at least to DH under manual control using a HUD for flight guidance. A manually flown landing is assumed and need not be specified.

b) Minimums of 1000 RVR, as published via a chart note on the part 97 procedure, require the flightcrew to use autoland or to fly under manual control using an FP HUD to touchdown.

1. For manual control using a HUD to touchdown, the FP HUD must be flown in the AIII approach mode.

2. The flightcrew has been trained at the lower visibilities before they can be authorized. If the flightcrew is currently authorized CAT III operations, no further training is required for this authorization in C060.

c) Foreign air carriers authorized SA CAT II, as described in subparagraph J2) below, may also be authorized to conduct approaches to standard CAT II facilities when the TDZ and/or centerline (CL) lights are inoperative or when the Approach Lighting System with Sequenced Flashing Lights (ALSF) is downgraded (such as no sequence flashing lights (SFL) or when operated as simplified short approach lighting system with runway alignment indicator lights (SSALR) or simplified short approach lighting system (SSALS)). They must comply with all requirements in subparagraph J2), using minimums appropriate to the RVR available and using autoland or manual (HUD) to touchdown.

2) SA CAT II. In addition to the standard CAT II operations authorized by OpSpec C060, SA CAT II operations can be authorized to qualifying runways that do not meet the performance or ground equipment requirements normally associated with a compliant CAT II operation (e.g., TDZ lighting, CL lighting, or ALSF 1 and 2).

a) The instrument landing system (ILS) facilities used are CAT I ILS installations that meet the glideslope (GS) and Localizer (LOC) signal quality requirements of CAT II facilities. The required increase in airplane capabilities of HUD or autoland to touchdown mitigates the reduced-lighting requirements.

b) SA CAT II requires the flightcrew to use autoland or to fly under manual control using an FP HUD to touchdown. These minimums may be no lower than 1200 RVR.

K. Crosswind Limitations. The crosswind component on the landing runway must be 15 knots or less, unless the AFM's crosswind limitations are more restrictive. This should be reflected in the approved training program and flightcrew bulletins.

L. Authorized Restricted/Nonstandard U.S. CAT II or CAT III Airports and Runways. The U.S. ILS facilities provided in the Flight Technologies and Procedures Division (AFS-400) Restricted/Nonstandard U.S. Facilities Approved for Category II & Category III Operations list are approved only for the specific airplanes listed when conducting CAT III operations or CAT II operations using autoland or FP HUD to touchdown. The characteristics of the pre-threshold terrain, runway TDZ slope, or steep GS at these facilities may cause abnormal performance in flight control systems. Additional analysis and/or flight demonstrations are typically required for each airplane type before approval of CAT II/III minimums at each runway. Publication of a part 97 Standard Instrument Approach Procedure (SIAP) or additional operators and their airplanes may be approved by the appropriate Flight Standards office (AFS-400) as provided in AC 120-28, Appendix 8, Irregular Terrain Assessment. Approved airplanes are equipped with either autoland or FP HUD flight guidance equipment. The restrictions at U.S. facilities for the certificate holder are provided as selectables for listing in Table 3 of OpSpec C060 (see Figure 12-22 below).

Figure 12-22. Sample C060 Table 3 – Restricted/Nonstandard U.S. Facilities

Approach Category, Airport Name/Identifier, Runway(s)	Limitations
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10L; RVR 300	Airplanes approved: A319, A320, B757, and B767
Pittsburgh/Greater Pittsburgh Intl, PA; KPIT RY10R; RVR 600 and RVR 300	Restricted to 600 RVR until less-than 600 RVR SMGCS operations are approved. Airplanes approved RVR 600: B757 and B767. Airplanes approved RVR 300: A319 and A330.

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