NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.740

National Policy

Effective Date:
6/4/25

Cancellation Date:
6/4/26

SUBJ: Removal of All Foreign Procedures and Foreign Airports from OpSpec/MSpec/LOA C059, C060, and C384, and Decommissioning of OpSpec/MSpec/LOA C058, C358, and H107

1. Purpose of This Notice. This notice announces a mandatory revision (in accordance with Federal Aviation Administration (FAA) Order 8900.1 Volume 3, Chapter 18, Section 3) to Operations Specification (OpSpec)/Management Specification (MSpec)/Letter of Authorization (LOA) C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations; OpSpec/MSpec/LOA C060, Category II and Category III Instrument Approach and Landing Operations; and OpSpec/MSpec/LOA C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR), 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), 135, and 121/135 combined certificate holders (CH). This notice also announces the decommissioning of OpSpec/MSpec/LOA C058, Special Restrictions for Foreign Terminal Instrument Procedures; OpSpec/MSpec/LOA C358, Special Restrictions for "RNP-like" Foreign RNAV Terminal Instrument Procedures with RNP Lines of Minima; and OpSpec/MSpec H107, Special Restrictions for Foreign Terminal Instrument Procedures. Finally, it announces revised Order 8900.1 policy guidance associated with the revisions to OpSpec/MSpec/LOA C059, C060, and C384; and the decommissioning of OpSpec/MSpec/LOA C058, C358 and OpSpec/MSpec H107.

> **Note: FAA employees and personnel are required to comply with this document. For non-FAA entities, this is a guidance document and conformity with the guidance document is voluntary only. Its content is not legally binding in its own right and will not be relied upon by the Department as a separate basis for affirmative enforcement action or other administrative penalty. Nonconformity will not affect rights and obligations under existing statutes and regulations.**

2. Audience. The primary audience for this notice is Flight Standards (FS) Safety Assurance principal inspectors (PI) assigned to operators conducting airplane operations under 14 CFR parts 91, 91K, 121, 125 (including part 125 LODA holders), and 135, and 121/135 combined CHs. The secondary audience includes the Safety Standards and Foundational Business 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 and the Dynamic Regulatory System (DRS) at https://drs.faa.gov. Operators and the public can find this notice on the FAA's website at https://www.faa.gov/regulations_policies/orders_notices and DRS.

4. Background.

a. The following OpSpec/MSpec/LOA C058, C358, and H107 are being decommissioned in their entirety. Research by the FAA Flight Procedures and Airspace Group (AFS-420) has determined that these OpSpecs/MSpecs/LOA limitations and authorizations are no longer applicable to operators.

(1) OpSpec/MSpec/LOA C058, applicable to 14 CFR parts 91K, 121, 125, 121/135, 135, and 125 LODA holders, is decommissioned.

(2) OpSpec/MSpec/LOA C358, applicable to 14 CFR parts 91, 91K, 121, 125, 121/135, 135, and 125 LODA holders, is decommissioned.

(3) OpSpec/MSpec H107, applicable to 14 CFR parts 91K, 121, 121/135, and 135, is decommissioned.

b. OpSpec/MSpec/LOA C059, C060, and C384, applicable to 14 CFR parts 91, 91K, 121, 125, 121/135, 135, and 125 LODA holders, are being revised to remove foreign airport and foreign procedures tables. International Civil Aviation Organization (ICAO) RNP AR Procedure development and foreign airport facility requirements are standardized to the degree that FAA review and approval is redundant and unnecessary. (Refer to Annex 1 through 19 to the Convention on International Civil Aviation for ICAO standards.) Operators have the information needed to make risk-based decisions when reviewing foreign RNP AR procedures and foreign facilities that utilize SA CAT I, SA CAT II, CAT II, and CAT III procedures. The following is a list of the changes to each revised template:

(1) OpSpec/MSpec/LOA C059 removes Subparagraph f (Subparagraph 6 for 14 CFR parts 91 and 125 LODA holders), Foreign Airports, and Table 1 (Table 2 in part 91 LOA), Foreign Airports and Runways.

(2) OpSpec/MSpec/LOA C060 removes Subparagraph i (Subparagraph 9 for 14 CFR parts 91 and 125 LODA holders), Foreign Airports, and Table 3, Foreign Airports and Runways.

(3) OpSpec/MSpec/LOA C384 removes Subparagraph e (Subparagraph d for 14 CFR part 125 and Subparagraph 4 for 14 CFR parts 91 and 125 LODA holders), Authorized RNP AR Procedures, and Table 2, Foreign Approaches Authorized for RNP AR Operations.

5. Discussion.

a. Evaluating Foreign Instrument Approach Procedures (IAP). Operators should continue to perform risk-based evaluations of foreign IAPs. Operators seeking additional guidance on these reviews should refer to Advisory Circular (AC) 120-105, Foreign Terminal Instrument Procedures (FTIP) Acceptance/Review. Regulatory requirements for

airport/procedure reviews include 14 CFR parts 91K, 121, 125 (including part 125 LODA holders), 135, and 121/135 CHs.

b. RNP AR Authorization. Operators must continue to have OpSpec/MSpec/LOA C384 RNP AR authorization Table 1 (aircraft make, model, and series (M/M/S) avionics specific) before flying any foreign RNP AR procedure.

c. CAT II/III Procedures. Operators must continue to have OpSpec/MSpec/LOA C060 (Table I CAT II and/or Table 2 CAT III) before flying foreign CAT II/III procedures.

d. Operations in Foreign Nations. Operators will continue to use the foreign nations' Aeronautical Information Publications (AIP) and perform evaluations based on AC 120-105.

6. Guidance.

a. Cancellation of FAA Order 8260.31. FS personnel will no longer be responsible for evaluating and authorizing the use of FTIP for operators flying foreign instrument flight procedures as outlined in Order 8260.31, Foreign Terminal Instrument Procedures (FTIP). This order is being canceled.

b. Order 8900.1. FAA Safety Assurance offices will no longer be required to approve operators' use of the specific foreign procedures/foreign airports as outlined in the OpSpec/MSpec/LOA changes in this notice. Principal Operations Inspectors (POI) will follow the revised guidance in Order 8900.1, Volume 3, Chapter 18, Section 5, Part C Operations Specifications–Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations. Additional guidance has been added for OpSpecs/MSpecs/LOAs C059, C060, and C384. The C384 application process guidance has been updated.

c. OpSpec/MSpec/LOA Templates. Appendices to this notice show the revised templates. This notice contains the following:

Appendix	Authorizing Document	Paragraph	Applicable to Part
A	OpSpec	C059	121
B	OpSpec	C060	121
C	OpSpec	C384	121
D	OpSpec	C059	125
E	OpSpec	C060	125
F	OpSpec	C384	125
G	OpSpec	C059	135
H	OpSpec	C060	135
I	OpSpec	C384	135
J	OpSpec	C059	121/135

Appendix	Authorizing Document	Paragraph	Applicable to Part
K	OpSpec	C060	121/135
L	OpSpec	C384	121/135
M	LOA	C059	91
N	LOA	C060	91
O	LOA	C384	91
P	MSpec	C059	91K
Q	MSpec	C060	91K
R	MSpec	C384	91K
S	LOA	C059	125 LODA holder
T	LOA	C060	125 LODA holder
U	LOA	C384	125 LODA holder

7. Action. This notice directs PIs to revise the affected C059, C060, and C384 templates within 90 calendar days of the effective date of this notice. PIs should review the revised Order 8900.1 guidance and this notice for issuance of OpSpec/MSpec/LOA C059, C060, and C384. PIs should provide this notice to the operators for whom they are responsible, alerting them to the changes. OpSpec/MSpec/LOA C058, C358, and H107 will be decommissioned on the effective date of this notice.

a. For OpSpec/MSpec/LOA C059, C060, and C384. PIs must issue the revised OpSpec/MSpec/LOA C059, C060, and C384 to affected operators within 90 calendar days of the effective date of this notice. Reissuance of OpSpec/MSpec/LOA C059, C060, and C384 is necessary due to updated operating procedures for foreign procedures and foreign airports and the removal of the tables comprising selection of foreign airports and foreign procedures.

b. For Decommissioned OpSpec/MSpec/LOA C058, C358, and H107. PIs with operators issued OpSpec/MSpec/LOA C058, C358, and H107 should archive the issued C058, C358, and H107 within 90 calendar days of the effective date of this notice and reissue OpSpec/MSpec A004, Summary of Special Authorizations and Limitations, or LOA A004, Summary of Authorizations, to remove the authorizing statements associated with the decommissioned C058, C358, and H107 from an operator's issued A004.

c. For 14 CFR Part 91 LOA Holders/LOA A001, Issuance and Applicability. Title 14 CFR part 91 LOA C059 and C060 designate the person listed in Table 1 of LOA A001 (revision 02c or later) as the Responsible Person. When issuing LOA C059 and/or C060 for a 14 CFR part 91 operator, the inspector should confirm the LOA holder's issued LOA A001 has the current Responsible Person information and, as applicable, reissue LOA A001 using the latest template revision.

8. Disposition. The FAA will incorporate the information in this notice into the applicable sections of Order 8900.1 before this notice expires. Direct questions or comments concerning the information in this notice to the Flight Technologies and Procedures Division (AFS-400) at 9-AWA-AFS400-COORD@faa.gov.

Hugh Thomas for
Lawrence Fields
Executive Director, Flight Standards Service

Appendix A. Sample OpSpec C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 121

a. The certificate holder is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this operations specification.

b. The certificate holder is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

(1) Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

(2) Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

(3) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this operations specification.

(4) SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)].

(5) The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(a) Two independent navigation receivers, or equivalent, of each type intended for use.

(b) At least one radio altimeter (RA), although two are recommended.

(c) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

(6) If SVGS is used to conduct SA CAT I operations, the certificate holder must ensure SVGS databases contain current data.

c. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph b(4) to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

(1) After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph b(4), or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

(2) The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

(3) The instrument approach procedure (IAP) must have published SA CAT I minimums.

(4) TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

(5) Single-pilot operations are not authorized for SA CAT I. The certificate holder must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

d. Pilot Qualifications and Approved Training. The minimums prescribed in this operations specification are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the certificate holder's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph b(4). The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

e. Maintenance. The certificate holder must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its Continuous Airworthiness Maintenance Program (CAMP) for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix B. 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 (CAT II)/Category II (CAT II) and Category III (CAT 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (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.]

○ (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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement. If a selection is made in error, click in the radio button with no associated text.]

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 instrument landing system (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.

(4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain instrument landing system (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 instrument approach procedure (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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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 touchdown 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.]

○ (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 touchdown 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 touchdown 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]

○ (2) CAT III operations are not authorized.

i. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

j. 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.

k. 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 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Hybrid CAT III Operations. Select the following text if applicable.]

☐ l. 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 C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 121

a. The certificate holder is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of these operations specifications. This authorization requires prior written concurrence by the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).

b. Authorized Aircraft and Equipment. The certificate holder is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

c. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this paragraph unless they have successfully completed the certificate holder's RNP AR IAP approved training and qualification program.

d. Dispatcher Qualifications. An aircraft dispatcher may not dispatch or release a flight for an RNP AR IAP unless the aircraft dispatcher has successfully completed the certificate holder's RNP AR IAP approved training program.

Appendix D. Sample OpSpec C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 125

a. The certificate holder is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this operations specification.

b. The certificate holder is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

(1) Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

(2) Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

(3) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this operations specification.

(4) SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)]

(5) The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(a) Two independent navigation receivers, or equivalent, of each type intended for use.

(b) At least one radio altimeter (RA), although two are recommended.

(c) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

(6) If SVGS is used to conduct SA CAT I operations, the certificate holder must ensure SVGS databases contain current data.

c. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph b(4) to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

(1) After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph b(4), or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

(2) The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

(3) The instrument approach procedure (IAP) must have published SA CAT I minimums.

(4) TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

(5) Single-pilot operations are not authorized for SA CAT I. The certificate holder must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

d. Pilot Qualifications and Approved Training. The minimums prescribed in this operations specification are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the certificate holder's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph b(4). The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

e. Maintenance. The certificate holder must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its approved inspection program (AIP) for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix E. 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 (CAT II)/Category II (CAT II) and Category III (CAT 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (AFM).

(2) The certificate holder must not begin the Final Approach Segment (FAS) of an instrument approach procedure (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.]

○ (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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (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]

- (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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement.]

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 instrument landing system (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.

(4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain instrument landing system (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 distance measuring equipment (DME) facility used to define the final approach fix (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 Systems (SMGCS), European Union 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 touchdown 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 touchdown 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.]

○ (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 touchdown 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 touchdown 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]

- (2) CAT III operations are not authorized.

i. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

j. 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.

k. 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 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Select the following text if applicable.]

☐ l. 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 F. Sample OpSpec C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 125

a. The certificate holder is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of these operations specifications. This authorization requires prior written concurrence by the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

b. Authorized Aircraft and Equipment. The certificate holder is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

c. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this paragraph unless they have successfully completed the certificate holder's RNP AR IAP approved training and qualification program.

Appendix G. Sample OpSpec C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 135

a. The certificate holder is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this operations specification.

b. The certificate holder is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

(1) Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

(2) Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

(3) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this operations specification.

(4) SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)].

(5) The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(a) Two independent navigation receivers, or equivalent, of each type intended for use.

(b) At least one radio altimeter (RA), although two are recommended.

(c) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

(6) If SVGS is used to conduct SA CAT I operations, the certificate holder must ensure SVGS databases contain current data.

c. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph b(4) to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

(1) After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph b(4), or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

(2) The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

(3)The instrument approach procedure (IAP) must have published SA CAT I minimums.

(4) TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

(5) Single-pilot operations are not authorized for SA CAT I. The certificate holder must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

d. Pilot Qualifications and Approved Training. The minimums prescribed in this operations specification are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the certificate holder's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph b(4). The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

e. Maintenance. The certificate holder must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its Continuous Airworthiness Maintenance Program (CAMP) or Approved Aircraft Inspection Program (AAIP) for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix H. 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 (CAT II)/Category II (CAT II) and Category III (CAT 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (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.]

○ (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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement.]

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 instrument landing system (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]

○ (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.

(4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain instrument landing system (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 instrument approach procedure (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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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 touchdown 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.]

○ (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 touchdown 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 touchdown 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 (2)(g)(i) and (ii) above, but must still comply with all RVR and other limitations of this CAT III authorization.

[OR]

- (2) CAT III operations are not authorized.

i. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

j. 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.

k. 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 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Hybrid CAT III Operations. Select the following text if applicable.]

☐ l. 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 I. Sample OpSpec C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 135

a. The certificate holder is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of these operations specifications. This authorization requires prior written concurrence by the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).

b. Authorized Aircraft and Equipment. The certificate holder is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

c. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this paragraph unless they have successfully completed the certificate holder's RNP AR IAP approved training and qualification program.

d. Dispatcher/Flight Follower Qualifications. When the certificate holder uses an aircraft dispatcher or flight follower, the aircraft dispatcher or flight follower may not dispatch or release a flight for an RNP AR IAP unless the aircraft dispatcher or flight follower has successfully completed the certificate holder's RNP AR IAP approved training program.

Appendix J. Sample OpSpec C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 121/135

a. The certificate holder is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this operations specification.

b. The certificate holder is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

(1) Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

(2) Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

(3) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this operations specification.

(4) SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)].

(5) The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(a) Two independent navigation receivers, or equivalent, of each type intended for use.

(b) At least one radio altimeter (RA), although two are recommended.

(c) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

(6) If SVGS is used to conduct SA CAT I operations, the certificate holder must ensure SVGS databases contain current data.

c. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph b(4) to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

(1) After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph b(4), or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

(2) The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

(3) The instrument approach procedure (IAP) must have published SA CAT I minimums.

(4) TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

(5) Single-pilot operations are not authorized for SA CAT I. The certificate holder must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

d. Pilot Qualifications and Approved Training. The minimums prescribed in this operations specification are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the certificate holder's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the certificate holder's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph b(4). The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

e. Maintenance. The certificate holder must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its Continuous Airworthiness Maintenance Program (CAMP) or Approved Aircraft Inspection Program (AAIP), as applicable, for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix K. 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 (CAT II)/Category II (CAT II) and Category III (CAT 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (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.]

○ (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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (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]

○ (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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement. If a selection is made in error, click in the radio button with no associated text.]

○ (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]

○ (3) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain instrument landing system (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.

(4) Special Authorization (SA) CAT II. The certificate holder is authorized to conduct CAT II operations on certain instrument landing system (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 instrument approach procedure (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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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 touchdown 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.]

○ (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 touchdown 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 touchdown 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]

- (2) CAT III operations are not authorized.

i. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

j. 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.

k. 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 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Hybrid CAT III Operations. Select the following text if applicable.]

☐ l. 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 L. Sample OpSpec C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 121/135

a. The certificate holder is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of these operations specifications. This authorization requires prior written concurrence by the Air Transportation Division (AFS-200) and the Flight Technologies and Procedures Division (AFS-400).

b. Authorized Aircraft and Equipment. The certificate holder is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

c. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this paragraph unless they have successfully completed the certificate holder's RNP AR IAP approved training and qualification program.

d. Dispatcher/Flight Follower Qualifications. An aircraft dispatcher or flight follower may not dispatch or release a flight for an RNP AR IAP unless the aircraft dispatcher or flight follower has successfully completed the certificate holder's RNP AR IAP approved training program.

Appendix M. Sample LOA C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 91

1. The operator is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this Letter of Authorization (LOA).

2. The operator is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

a. The airplane(s) authorized in Table 1 below must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

Table 1 – Airplane(s) Authorized SA CAT I

Serial Number	Registration Number	Airplane Make/Model/Series

b. Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

c. An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this LOA.

d. SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)].

e. The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(1) Two independent navigation receivers, or equivalent, of each type intended for use.

(2) At least one radio altimeter (RA), although two are recommended.

(3) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

f. If SVGS is used to conduct SA CAT I operations, the operator must ensure SVGS databases contain current data.

3. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph 2d to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

a. After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph 2d, or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

b. The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

c. The instrument approach procedure (IAP) must have published SA CAT I minimums.

d. TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

e. Single-pilot operations are not authorized for SA CAT I. The operator must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

4. Pilot Qualifications and Approved Training. 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 SA CAT I training program, and have been qualified in each guidance system to be used for an SA CAT I operation specified in subparagraph 2d.

a. Flightcrew training is conducted by *[Name of the entity providing flightcrew training]*. In accordance with §§ 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.

b. The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

5. Maintenance. The operator must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its inspection procedures or approved inspection program (AIP) for the SA CAT I authorized aircraft listed above in Table 1. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

6. Responsible Person. The Responsible Person for this authorization is listed in Table 1 of LOA A001 (revision 02c or later).

Appendix N. 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 (CAT II)/Category II (CAT II) and Category III (CAT III)] instrument approach and landing operations as authorized 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (AFM) for the conduct of the 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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (MEL) and AFM, using minimums no lower than those shown below (subparagraphs 4b(5)(A)–(C)) corresponding to the type of landing and/or rollout systems operable after the failure.

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

(B) 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.

(C) 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 *[Name of the entity providing flightcrew training]*. 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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement. If you accidentally make a selection, select the last radio button with no text associated with it.]

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 instrument landing system (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:

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

(B) 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.

d. Special Authorization (SA) CAT II. The operator is authorized to conduct CAT II operations on certain instrument landing system (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:

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

(B) 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 instrument approach procedure (IAP) authorized in paragraph 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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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), 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.]

○ 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. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

10. 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.

11. Responsible Person. The Responsible Person for this authorization is listed in Table 1 of LOA A001 (revision 02c or later). *[Select to authorize Hybrid CAT III operations.]*

☐ 12. 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 paragraph 2.

Appendix O. Sample LOA C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 91

1. The operator is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of this Letter of Authorization (LOA). This authorization requires prior written concurrence by the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

2. Authorized Aircraft and Equipment. The operator is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

3. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this LOA unless they have successfully completed the RNP AR IAP training in accordance with Advisory Circular (AC) 90-101A, Approval Guidance for RNP Procedures with AR, as revised.

Appendix P. Sample MSpec C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 91K

a. The program manager is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this management specification.

b. The program manager is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

(1) Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower:

(2) Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

(3) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this management specification.

(4) SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)]

(5) The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(a) Two independent navigation receivers, or equivalent, of each type intended for use.

(b) At least one radio altimeter (RA), although two are recommended.

(c) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

(6) If SVGS is used to conduct SA CAT I operations, the program manager must ensure SVGS databases contain current data.

c. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph b(4) to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

(1) After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph b(4), or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

(2) The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

(3) The instrument approach procedure (IAP) must have published SA CAT I minimums.

(4) TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

(5) Single-pilot operations are not authorized for SA CAT I. The program manager must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

d. Pilot Qualifications and Approved Training. The minimums prescribed in this management specification are authorized for only those pilots in command (PIC) and seconds in command (SIC) who have completed the program manager's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the program manager's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph b(4). The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

e. Maintenance. The program manager must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its Continuous Airworthiness Maintenance Program (CAMP) or approved inspection program (AIP) for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix Q. Sample MSpec C060, Category II and Category III Instrument Approach and Landing Operations: 14 CFR Part 91K

a. The program manager is authorized to conduct [Category II (CAT II)/Category II (CAT II) and Category III (CAT 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 instrument approach procedure (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, Airplane Flight Manual (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.]

○ (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 a fail passive (FP) landing system with an FP or fail operational (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 minimum equipment list (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]

- (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 above in Table 1 must be used at least to the approach procedure decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement.]

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 instrument landing system (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.

(4) Special Authorization (SA) CAT II. The program manager is authorized to conduct CAT II operations on certain instrument landing system (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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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 touchdown 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.]

○ (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 touchdown 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 touchdown 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]

○ (2) CAT III operations are not authorized.

i. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

j. 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.

k. 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 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Hybrid CAT III Operations. Select the following text if applicable.]

☐ l. 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 R. Sample MSpec C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 91K

a. The program manager is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). Such operations must be conducted in accordance with the provisions of these management specifications. This authorization requires prior written concurrence by the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

b. Authorized Aircraft and Equipment. The program manager is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

c. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this paragraph unless they have successfully completed the program manager's RNP AR IAP approved training and qualification program.

d. Dispatcher/Flight Follower Qualifications. If the program manager uses an aircraft dispatcher or flight follower, the aircraft dispatcher or flight follower may not dispatch or release a flight for an RNP AR IAP unless the aircraft dispatcher or flight follower has successfully completed the program manager's RNP AR IAP training program.

Appendix S. Sample LOA C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations: 14 CFR Part 125 (A125 LODA Holder)

1. The operator/company, authorized to conduct operations in accordance with the Letter of Deviation Authority (LODA A125), is authorized to conduct Special Authorization Category I (SA CAT I) instrument approach and landing operations, when in compliance with 14 CFR Part 97 special aircrew and aircraft certification requirements, as specified in this Letter of Authorization (LOA).

2. The operator/company is authorized SA CAT I landing minimums as low as a 150-foot decision height (DH) and 1400 Runway Visual Range (RVR) to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions:

a. Each airplane used to conduct SA CAT I operations must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

b. Required equipment approved as basis for SA CAT I authorization (e.g., Head-Up Display (HUD), Synthetic Vision Guidance System (SVGS)) must provide each pilot with course and glide path command guidance to the DH, while simultaneously providing the pilot flying (PF) with a continuous indication of the desired trajectory to the runway TDZ independent of the guidance used for the approach. The guidance system must also provide the PF with dynamic perception of aircraft position relative to the TDZ of the runway of intended landing in order to facilitate the transition to the visual segment of the approach by reducing the time needed for the acquisition of visual cues.

c. An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of this LOA.

d. SA CAT I authorization is based upon [a certified HUD/a certified SVGS displayed on a head-down display (HDD)/either a certified HUD or a certified SVGS displayed on a head-down display (HDD)].

e. The following, along with any applicable equipment otherwise required for CAT I instrument flight rules (IFR) operations, must be installed and operating properly to conduct SA CAT I operations.

(1) Two independent navigation receivers, or equivalent, of each type intended for use.

(2) At least one radio altimeter (RA), although two are recommended.

(3) Rain removal equipment for each pilot (e.g., windshield wiper, bleed air, or rain repellant).

f. If SVGS is used to conduct SA CAT I operations, the operator/company must ensure SVGS databases contain current data.

3. Additional Limitations and Provisions. The flightcrew must use the means of guidance authorized in subparagraph 2d to the DH or to the initiation of missed approach, and the guidance must be continuously displayed on the approved system.

a. After passing the final approach fix (FAF), a missed approach must be executed if the approach guidance system specified in subparagraph 2d, or any other airborne equipment required for the particular SA CAT I operation being conducted, becomes inoperative or is disengaged, unless the requirements of 14 CFR Part 91, § 91.175(c) can be met.

b. The crosswind component on the landing runway must be 15 knots or less unless the Airplane Flight Manual's (AFM) crosswind limitation is more restrictive.

c. The instrument approach procedure (IAP) must have published SA CAT I minimums.

d. TDZ RVR reports for the landing runway are controlling. The mid-RVR report may NOT be substituted for the TDZ RVR report in SA CAT I operations.

e. Single-pilot operations are not authorized for SA CAT I. The operator/company must use a two-pilot flightcrew in aircraft appropriately equipped for two-pilot IFR.

4. Pilot Qualifications and Approved Training. 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/company's SA CAT I training and qualification program approved by the Administrator, and have been qualified by one of the operator/company's check pilots or an FAA inspector, in each guidance system to be used for an SA CAT I operation specified in subparagraph 2d. The flightcrew must demonstrate proficiency in instrument approaches and landings to SA CAT I minimums or lower (e.g., CAT II or CAT III) using each FGS authorized for SA CAT I operations.

5. Maintenance. The operator/company must incorporate the design approval holder's (DAH) instructions for continued airworthiness (ICA) into its approved inspection program (AIP) for the aircraft used in SA CAT I operations. This requirement includes cleaning, inspection, adjusting, testing, and any other actions specified at time of FGS certification to maintain airworthiness.

Appendix T. 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 (CAT II)/Category II (CAT II) and Category III (CAT III)] instrument approach and landing operations in accordance with the Letter of Deviation Authority (LODA A125) 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 touchdown zone (TDZ), mid, and rollout Runway Visual Range (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

Note: * The term HUD assumes Manual HUD, HUD = CAT II certified Head-Up Display; FP HUD = CAT III certified Head-Up Display; 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

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 Airplane Flight Manual (AFM).

b. The operator/company must not begin the Final Approach Segment (FAS) of an instrument approach procedure (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 in subparagraphs 4b(2), (3), and (4).

(2) For operations using a fail passive (FP) landing system with an FP or fail operational (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 its minimum equipment list (MEL) and AFM, using minimums no lower than those shown below (subparagraphs 4b(5)(A)–(C)) corresponding to the type of landing and/or rollout systems operable after the failure.

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

(B) 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.

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

Note: [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 above 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 decision height (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 Special Authorization (SA) CAT II as applicable. Selecting an option is not a requirement.]

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 instrument landing system (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:

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

(B) 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.

d. Special Authorization (SA) CAT II. The operator/company is authorized to conduct CAT II operations on certain instrument landing system (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:

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

(B) 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 distance measuring equipment (DME) facility used to define the final approach fix (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 Union 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 touchdown 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 touchdown 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), 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.]

○ 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:

(A) 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 touchdown in the TDZ.

(B) 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 touchdown 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. 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 3 below:

Table 3 – Restricted/Nonstandard U.S. Facilities

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

10. 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.

11. Engine Inoperative Operations. The operator/company is approved for operations authorized in subparagraph 1 with an inoperative engine using the airplanes and limitations specified in Table 4 below.

Table 4 – Engine Inoperative Operations

Airplane M/M/S	Operational Authorization	Limitations

[Hybrid CAT III Operations. Select the following text if applicable.]

☐ 12. 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 U. Sample LOA C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR): 14 CFR Part 125 (A125 LODA Holder)

1. The operator/company authorized to conduct operations in accordance with the Letter of Deviation Authority (LODA A125), is authorized to conduct operations using 14 CFR Part 97 Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR) in accordance with the provisions of this Letter of Authorization (LOA). This authorization requires prior written concurrence by the General Aviation and Commercial Division (AFS-800) and the Flight Technologies and Procedures Division (AFS-400).

2. Authorized Aircraft and Equipment. The operator/company is authorized to conduct RNP AR IAP operations using the aircraft and area navigation systems listed in Table 1.

Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures With AR

Aircraft M/M/S	Navigation System M/M Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities

3. Flightcrew Qualifications. The flightcrew must not conduct any operations authorized by this LOA unless they have successfully completed the RNP AR IAP training in accordance with Advisory Circular (AC) 90-101A, Approval Guidance for RNP Procedures with AR, as revised.