

VOLUME 3 GENERAL TECHNICAL ADMINISTRATION**CHAPTER 18 OPERATIONS SPECIFICATIONS****Section 5 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations**

3-871 GENERAL. Part C is issued to operators who conduct Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135 operations with fixed-wing airplanes. It is not issued to part 135 operators who only conduct helicopter operations. Instrument flight rules (IFR) helicopter operators are issued Part H. Part C is not usually issued to part 135 on-demand operators who are restricted to visual flight rules (VFR)-only operations. In rare situations, operations specification (OpSpec) C070 is issued to part 135 VFR-only operators who are authorized to conduct commuter operations. However, for those who operate outside the United States, a Letter of Authorization (LOA) may be issued to eligible part 91 operators if requested.

NOTE: All 300-series and nonstandard 500-series OpSpecs/management specifications (MSpecs)/training specifications (TSpecs)/LOAs (Parts A, B, C, D, E, and H) require approval by the appropriate Flight Standards policy division. Title 14 CFR parts 61, 91, 91K, 125 (including the 125 LODA holders), 133, and 137 operators' nonstandard operational requests must be approved by the General Aviation and Commercial Division (AFS-800). Parts 121, 135, and 142 nonstandard operational requests must be approved for issuance by the Air Transportation Division (AFS-200). Parts 121, 135, and 145 repair station and all airworthiness nonstandard requests must be approved by the Aircraft Maintenance Division (AFS-300). All Weather Operations (AWO) relating to instrument procedures must be approved by the Flight Technologies and Procedures Division (AFS-400) and AFS-200 or AFS-800, as appropriate. Nonstandard authorizations for 14 CFR part 129 foreign operators require approval from the International Program Division (AFS-50).

NOTE: All text added to an OpSpec/MSpec/TSpec/LOA through the use of nonstandard text entered in the nonstandard text block (sometimes referred to as "Text 99") must also be approved by the appropriate Flight Standards policy division. For detailed guidance on the process for obtaining approval for nonstandard authorizations, principal inspectors (PI) must read the guidance contained in Volume 3, Chapter 18, Section 2.

NOTE: The following TSpecs designated with a "*" are for part 142 only.

OPSPEC/MSPEC/LOA C048—ENHANCED FLIGHT VISION SYSTEM (EFVS) OPERATIONS.

A. Introduction.

1) Operators, program managers, or certificate holders under 14 CFR part 91K, 121, 125 (including part 125 Letter of Deviation Authority (A125 LODA) holders), or 135 require the C048 authorization to conduct EFVS operations under part 91, § 91.176.

2) Part 91 operators (other than part 91K) require LOA C048 to conduct EFVS operations under § 91.176(a).

3) Part 91 operators (other than part 91K) do not require LOA C048 to conduct EFVS operations under § 91.176(b), but inspectors may issue LOA C048 to operators on request.

B. Instructions. Inspectors can find instructions for filling out OpSpec/MSpec/LOA C048 and other guidance related to EFVS in Volume 4, Chapter 17.

OPSPEC/MSPEC C049—DESTINATION AIRPORT ANALYSIS.

A. General. OpSpec C049 is an optional authorization for 14 CFR part 135 certificate holders that have been issued OpSpec A057 as an eligible on-demand operator for reducing effective runway length requirements for turbine-engine powered, large transport-category airplanes that must be met before a flight's release, provided certain requirements are met by the operator. MSpec C049 is an optional authorization for 14 CFR part 91 subpart K (part 91K) fractional ownership operations program managers to reduce effective runway length requirements for turbine-engine powered, large transport-category airplanes that must be met before a flight's release, provided the program manager meets certain requirements.

B. Destination Airport Analysis. FAA regulations governing operations under parts 91K and 135 provide for reducing effective runway length requirements for turbine-engine powered, large-transport category airplanes that must be met before a flight's release, provided the operator meets certain requirements. For destination airports, normal landing distance requirements for part 91K and 135 operations are 60 percent of the available runway length. For alternate airport landing distance requirements, part 91K remains at 60 percent, while part 135 allows for 70 percent of the effective runway length. If an operator desires to reduce such requirements below 60 percent of the available runway length, that operator must meet regulatory requirements in two areas:

1) Part 135 eligible on-demand operator (OpSpec A057 must be issued) or part 91K program experience; and

2) FAA-approved Destination Airport Analysis Program (DAAP). The DAAP must address specific regulatory requirements and be approved for use through that operator's MSpecs or OpSpecs, as applicable.

C. Experience Requirements. An eligible on-demand operator is defined in part 135, § 135.4. Fractional ownership programs must meet the same requirements and are identified in

part 91, §§ 91.1053 and 91.1055. The requirements include an on-demand or fractional ownership program operation that meets the following requirements:

1) Two-Pilot Crew. The flightcrew must consist of at least two qualified pilots employed or contracted by the certificate holder.

2) Flightcrew Experience. The crewmembers must have met the applicable requirements of 14 CFR part 61 and have the following experience and ratings:

a) Total flight time for all pilots:

- Pilot in command (PIC)—A minimum of 1,500 hours.
- Second in command (SIC)—A minimum of 500 hours.

b) For multiengine, turbine-powered fixed-wing, and powered-lift aircraft, the following FAA certification and ratings requirements:

- PIC—Airline transport pilot (ATP) and applicable type ratings.
- SIC—Commercial pilot and instrument ratings.

c) For all other aircraft, the following FAA certification and rating requirements:

- PIC—Commercial pilot and instrument ratings.
- SIC—Commercial pilot and instrument ratings.

3) Pilot Operating Limitations. If the SIC of a fixed-wing aircraft has fewer than 100 hours of flight time as SIC flying in the aircraft make and model, a type rating is required in the type of aircraft being flown, and the PIC is not an appropriately qualified check pilot, the PIC will make all takeoffs and landings in any of the following situations:

a) Landings at the destination airport when a Destination Airport Analysis is required by part 135, § 135.385(f); and

b) In any of the following conditions:

- The prevailing visibility for the airport is at or below three-quarters of a mile;
- The Runway Visual Range (RVR) for the runway to be used is at or below 4,000 feet;
- The runway to be used has water, snow, slush, ice, or similar contamination that may adversely affect aircraft performance;
- The braking action on the runway to be used is reported to be less than “good”;
- The crosswind component for the runway to be used is in excess of 15 knots;

- Wind shear is reported in the vicinity of the airport; and
- Any other condition in which the PIC determines it to be prudent to exercise the PIC's authority.

4) Crew Pairing. Either the PIC or the SIC must have at least 75 hours of flight time in that aircraft make or model and, if a type rating is required for that type aircraft, either as PIC or SIC.

D. Deviations. The Administrator may authorize deviations from the total flight time requirements of § 91.1053(a)(1) or crew pairing requirements of § 91.1055(b) if the FAA office that issued the OpSpecs or MSpecs, as applicable, finds that the crewmember has comparable experience and can effectively perform the functions associated with the position in accordance with the requirements of this chapter. The Administrator may, at any time, terminate any grant of deviation authority issued under this provision. Grants of deviation may be authorized after consideration of the size and scope of the operation, the qualifications of the intended operating pilots, and the following circumstances:

- 1) A newly authorized certificate holder does not employ any pilots who meet the minimum requirements of § 91.1055(b).
- 2) An existing certificate holder adds to its fleet a new category and class aircraft not used before in its operation.
- 3) An existing certificate holder establishes a new base to which it assigns pilots who will be required to become qualified on the aircraft operated from that base.

E. DAAP Requirements. DAAP requirements are found in §§ 91.1025 and 135.23. Specifically, if required by § 91.1037(c) or § 135.385, as applicable, the Destination Airport Analysis establishing runway safety margins must include the following elements, supported by aircraft performance data supplied by the aircraft manufacturer for the appropriate runway conditions at the airport(s) to be used, if a reduction below 60 percent of the available runway length is planned:

1) Pilot Qualifications and Experience. The operator is responsible for including all applicable regulatory requirements to establish a pilot's eligibility to reduce effective runway planning requirements below 60 percent of the available runway length. Experience requirements address pilots with less than 100 hours of flight time in type (high minimum), total flight time, and crew pairing limitations (less than 75 hours in type).

2) Aircraft Performance Data to Include Normal, Abnormal, and Emergency Procedures as Supplied by the Aircraft Manufacturer. Landing distance calculations should be completed using FAA-approved procedures and data. Consideration must be given to abnormal and emergency procedures, as some of these procedures may increase approach speeds and consequently, landing distance requirements. Additionally, planned takeoff weight for the departure from that airport should be evaluated before operating into that airport.

3) Airport Facilities and Topography. Consider what services are available at the airport. Services such as communications, maintenance, and fueling may have an impact on

operations to and from that airport. Terrain features may figure prominently in or near a particular airport. High, fast-rising terrain may require special approach or DPs, which may impact performance requirements. For example, an aircraft certification criterion uses a 3.5 degree glideslope angle in computing landing distance data. glideslope angles of 2.5 to 3 degrees are common and have the effect of lengthening actual landing distance. Airports that sit on top of hilly terrain or downwind of mountainous terrain may occasionally experience conditions that include gusty conditions or winds shifting from a headwind to a tailwind. Such conditions are an important consideration during the landing maneuver, particularly during the flare, and increase landing distance requirements.

4) Runway Conditions (including contamination). Runway features, such as slope and surface composition, can cause the actual landing distance to be longer than the calculated landing distance. Wet or slippery runways may preclude reductions from being taken and, in fact, require 115 percent of the distance derived from calculations, whether a reduction was used or not. This distance is calculated by increasing the distance required under dry conditions by an additional 15 percent (i.e., if Aircraft Flight Manual (AFM) data show the actual landing distance will be 2,000 feet, the effective runway length required is 3,334 feet using 60 percent in this example; if the runway is expected to be wet or slippery upon arrival, the effective runway length required is 3,834 feet). Braking action always impacts the landing distance required as it deteriorates. Always consider the most current braking action report and the likelihood of an update before the flight's arrival at a particular airport.

5) Airport or Area Weather Reporting. Some airports may not have current weather reports and forecasts available for flight planning. Others may have automated observations for operational use. Still others may depend on a nearby airport's forecast for operations. Area forecasts are also very valuable in evaluating weather conditions for a particular operation. Comparing forecasted conditions to current conditions will lend insight to changes taking place as weather systems move and forecasts are updated. Longer flight segments may lean more heavily on the forecast for the estimated time of arrival (ETA), as current conditions may change significantly as weather systems move. For example, if a flight is planned for 5 hours en route, the current conditions may not provide as much insight as a forecast for the arrival time if a cold front is expected to pass through the area while the flight is en route.

6) Appropriate Additional Runway Safety Margins, If Required. Displaced thresholds, airport construction, and temporary obstacles (such as cranes and drawbridges) may impact runway length available for landing. Notices to Airmen (NOTAM) must be consulted before conducting a flight and are a good source of information on items such as these.

7) Airplane Inoperative Equipment. Thrust reversers, on airplanes so equipped, provide some effect of reducing landing rollout distance. However, they are not considered in landing distance performance requirements and data provided by airplane manufacturers during certification. Rather, they provide an added margin of safety when used. If thrust reversers are inoperable or not installed, that additional safety margin does not exist. Also, their effectiveness is directly related to many factors, including pilot technique, reverser deployment rates, engine speeds, and environmental conditions (e.g., wet or contaminated runways in conjunction with crosswinds). Their actual effectiveness varies greatly. Other airplane systems that directly impact

landing distance requirements include antiskid and ground spoilers (if installed), brake and tire condition, and landing flap selection, to name a few.

8) Environmental Conditions. Many environmental conditions directly and indirectly affect actual landing distance requirements. Frontal passage usually causes winds to shift, sometimes causing a tailwind component. Tailwinds generally have a significantly greater impact on landing distance than headwinds. Thunderstorms in the vicinity of airports can introduce wind gusts from different directions, including wind shear, to varying degrees that are difficult to predict in advance or during the actual landing maneuver itself. Density and pressure altitudes also directly impact landing distance requirements. Landing distance tables may take these factors into account. However, variations from planned conditions and actual conditions at time of landing can vary and impact actual landing distance requirements. Stronger-than-forecasted tailwinds en route can cause the airplane to weigh more than projected, causing the actual landing distance to be longer than planned. If icing conditions were encountered while en route and temperatures above freezing are not reached before landing, any ice remaining behind removal devices or on areas that are not protected add additional weight and drag to the airplane, which in turn requires higher airspeeds and longer landing distances.

9) Other Criteria That Affect Aircraft Performance. Many other variables affect landing distance. Approach speed, flap configuration, airplane weight, tire and brake condition, airplane equipment, and environmental conditions, to name a few, all directly impact required landing distance. With these and many other factors considered, it is the pilot who must apply them through the use of procedures and technique, the latter being highly variable. While specific additives are provided by manufacturer's landing data, a pilot usually applies techniques acquired through experience in dealing with similar circumstances. Pilots may opt for an especially smooth landing on longer runways by "floating" in ground effect, before touchdown. While possibly yielding a smooth landing, this technique will add to the landing distance requirement, as landing data provided by manufacturer's data through the certification process assumes a touchdown rate of descent of 8 feet per second. The following tables provide additional insight into factors that affect landing distance requirements and policies and procedures addressing them should be included in the operator's FAA-approved DAAP.

Table 3-16. Reduction of Landing Distance Planning Requirements**GENERAL OPERATIONAL CONSIDERATIONS**

Certification Criteria	Operational Consideration	Effect on Safety Margin
3.5 degree glideslope angle	2.5 to 3 degrees typical.	Actual landing distance will be longer than calculated landing distance.
8 ft/s touchdown rate of descent	2 to 4 ft/s typical.	Actual landing distance will be longer than calculated landing distance.
Assumes all approach speed additives bled off before reaching the 50 ft height	5 to 10 knots exceedances not uncommon.	Actual landing distance will be longer than calculated landing distance.
	Longer flare distance (“float”).	Actual landing distance will be longer than calculated landing distance.
	Less-than-full braking effort.	Actual landing distance will be longer than calculated landing distance.
	Delays in obtaining full braking configuration.	Actual landing distance will be longer than calculated landing distance.
	Higher temperatures not accounted for (temperature accountability not required).	Actual landing distance will be longer than calculated landing distance.
	Downhill runway slope not accounted for (runway slope accountability not required).	Actual landing distance will be longer than calculated landing distance.
	Icy, slippery, or contaminated runway surface.	Actual landing distance will be longer than calculated landing distance.
	Airplane heavier at time of landing than predicted at time of dispatch.	Actual landing distance will be longer than calculated landing distance.
	Airplane higher than 50 ft over the threshold.	Actual landing distance will be longer than calculated landing distance.
	Airport pressure altitude higher than predicted at time of dispatch.	Actual landing distance will be longer than calculated landing distance.

OTHER VARIABLE CONSIDERATIONS

Steady-State Variables	Non Steady-State Variables	Actual Operations vs. Flight Test	Actual vs. Forecast Conditions
Runway slope	Wind gusts/turbulence	Flare technique	Runway or direction (affecting slope)
Temperature	Flightpath deviations	Time to activate deceleration devices	Airplane weight
Runway surface condition (dry, wet, icy, texture)		Flightpath angle	Approach speed
Brake/tire condition		Rate of descent at touch down	Environmental conditions (for example, temperature, wind, pressure altitude)
Speed additives		Approach/touchdown speed	Engine failure
Crosswinds		Height at threshold	
		Speed control	

F. Operator Responsibility. Operators are responsible for preparing their DAAP if they desire to reduce landing distance planning requirements below 60 percent of the effective runway length. Operators must ensure that their policies and procedures reflect at least minimum regulatory requirements and adequate policies and procedures before submitting their program to the FAA for approval.

G. Checklist. The checklist is available electronically in the guidance subsystem of the automated Operations Safety System (OPSS) in association with OpSpec/MSpec C049. The checklist should be used to ensure that the operator and its DAAP meet minimum regulatory requirements. This checklist should be completed by the operator and be provided to the FAA office having approval authority, along with the DAAP and request for approval and issuance of OpSpec C049 or MSpec C049, as applicable.

OPSPEC C050—SPECIAL PILOT-IN-COMMAND AIRPORT QUALIFICATIONS.

A. General. OpSpec C050 is used to authorize 14 CFR part 121 air carrier certificate holders (CH) to conduct instrument flight rules (IFR) operations into special airports requiring special airport qualification in accordance with the provisions and limitations of the OpSpec and part 121, § 121.445. For detailed information refer to Volume 4, Chapter 3, Section 5, paragraph 4-602.

B. Operations into Special Pilot in Command (PIC) Qualification Airports. Air carriers conducting domestic, flag, and supplemental operations require the PIC to be qualified for operations into special PIC qualification airports. These PICs must be qualified in accordance with § 121.445.

1) OpSpec C050 is used to authorize special PIC qualification airports for domestic, flag, and supplemental part 121 air carriers.

2) The list of special qualification airports can be found in the Web-based Operations Safety System (WebOPSS) guidance subsystem in association with OpSpec C050 and in the Dynamic Regulatory System (DRS) at <https://drs.faa.gov>.

C. PIC Requirements. If both the ceiling and the visibility minimums are not satisfied as detailed in § 121.445(c), then the qualification requirements of § 121.445(b) apply. Section 121.445(b) specifies that for a pilot to serve as PIC on a flight to a special qualification airport, the PIC must have the benefit of one of the following:

1) The PIC, within the preceding 12 calendar-months, has made a takeoff and landing at that airport while serving as a pilot flightcrew member;

2) The second in command (SIC), within the preceding 12 calendar-months, has made a takeoff and landing at that airport while serving as a pilot flightcrew member; or

3) Within the preceding 12 calendar-months, the PIC has qualified by using pictorial means acceptable to the Administrator for that airport.

D. Operator Assessment of Airport Factors. The operator assesses the nature and complexity of certain factors associated with the airport (e.g., high altitude, foreign airport, specific terrain features, unique weather patterns may be present singly or in combination). This assessment determines whether the airport should be included in the air carrier's airport listing in OpSpec C067 or the provisions of OpSpec C050 apply. For instance, an airport with an approved IFR and/or visual flight rules (VFR) approach/departure procedure and an unusual characteristic, such as a nearby politically sensitive international boundary or high terrain, may require designation as a special PIC qualification airport. In this case, the airport would need to be listed in OpSpec C067 and the provisions of OpSpec C050 also apply. See Volume 4, Chapter 3, Section 5, paragraph 4-602, and OpSpec C067.

E. Addition and Removal From the Special Airport Qualification List. The air carriers, in conjunction with the Air Transportation Division (AFS-200), will determine any airport additions or deletions from the special airport qualification list. These changes will be made on a quarterly basis.

OPSPEC/MSPEC C051—TERMINAL INSTRUMENT PROCEDURES. C051 is issued to all airplane operators who conduct any flight operations under instrument flight rules (IFR). FAA Order 8260.31, Foreign Terminal Instrument Procedures, current edition, provides direction and guidance on acceptance of foreign Terminal Instrument Procedures (TERPS). Additional information concerning TERPS is in Volume 4, Chapter 2, Section 3. For helicopter authorization, see OpSpec H101.

OPSPEC/MSPEC/LOA C052—STRAIGHT-IN NON-PRECISION, APV, AND CATEGORY I PRECISION APPROACH AND LANDING MINIMA—ALL AIRPORTS.

A. Applicability. OpSpec/MSpec/LOA C052 is applicable to all operators conducting airplane operations under 14 CFR parts 91, 91K, 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. C052 specifies the types of instrument approaches the operator is authorized to conduct under instrument flight rules (IFR), prohibits the use of other types of instrument approaches, and authorizes the lowest straight-in nonprecision, approach procedures with vertical guidance (APV), and Category (CAT) I precision approach and landing minima. (For helicopter operations, see Volume 3, Chapter 18, Section 7, OpSpecs H101, H103, and H117.) OpSpec/MSpec/LOA C052 is applicable to operators as follows:

1) OpSpec C052 is:

- Required to be issued to operators conducting operations under part 121 or 125;
- Required to be issued to operators using turbojets in operations under part 135; and
- Optional for operators conducting operations under part 135 with all other aircraft.

2) Part 125 LOA C052 is required for operators conducting operations under part 125 that are issued a deviation from the certificate and OpSpec requirements of part 125 (A125 LODA holders).

3) MSpec C052 is required to be issued to those program managers conducting operations under part 91K.

4) Part 91 LOA C052 is optional and provided for part 91 operators to satisfy a request from foreign regulatory authorities for evidence of training and approval to fly Global Navigation Satellite System (GNSS)-based and precision runway monitor (PRM) approaches. Unlike the other C052 templates, the inspector only has the option of Ground Based Augmentation System (GBAS) Landing System (GLS), or Area Navigation (RNAV) (GNSS) approaches to lateral navigation (LNAV), LNAV/vertical navigation (VNAV), localizer performance with vertical guidance (LPV), or Localizer Performance (LP) lines of minima. As a result, this LOA is not a comprehensive list of authorized approaches for the operator, but only a subset to address foreign GNSS-based approaches.

a) The inspector should request the operator present confirmation of eligibility to fly these procedures, to include the applicable lines of minima. The operator must be able to provide confirmation via their FAA-approved Airplane Flight Manual (AFM) or other similar manufacturer-provided documentation. The current editions of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace; AC 90-107, Guidance for Localizer Performance with Vertical Guidance and Localizer Performance without Vertical Guidance Approach Operations in the U.S. National Airspace System; and AC 20-138,

Airworthiness Approval of Positioning and Navigation Systems, provide operators with guidance and a means of compliance to meet FAA policy regarding RNAV/Global Positioning System (GPS) procedures. Operators may elect to follow alternative methods accepted by the FAA.

b) The operator must also provide evidence of training to fly those procedures. When provided satisfactory information, the inspector may select the appropriate lines of minima in Table 1, Authorized Instrument Approach Procedures, of the LOA. Similarly, for PRM approaches, the operator must verify review of the associated PRM information provided in the Aeronautical Information Manual (AIM), Chapter 5, Air Traffic Procedures, in order for the inspector to include the PRM authorization in LOA C052.

NOTE: Technical questions regarding the approaches authorized by C052 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-267-8790. Questions regarding the issuance of C052, including operational and training requirements, should be directed to the Air Transportation Division (AFS-200) at 202-267-8166, or the General Aviation and Commercial Division (AFS-800) at 202-267-1100.

B. Types of Instrument Approaches Authorized. In OpSpec/MSpec/LOA C052, Table 1 specifies the types of instrument approaches the operator is authorized to conduct under IFR and prohibits the use of other types of instrument approaches. The Principal Operations Inspector (POI) will select the approaches that apply to the operator. Refer to the AIM for a detailed description of each approach.

1) Before authorizing a type of instrument approach procedure (IAP), the POI, Principal Maintenance Inspector (PMI), and Principal Avionics Inspector (PAI) must ensure that:

- The operator has the appropriate training and operations manuals,
- Flightcrew training and qualification requirements have been met, and
- The equipment and systems are appropriate for the types of approaches to be authorized.

2) See Volume 4, Chapter 2, Section 1 for information on required training for various types of approaches.

3) All the approaches approved by OpSpec/MSpec/LOA C052 must be published in accordance with 14 CFR part 97 or the Foreign State Authority.

4) If the operator is authorized to conduct GPS procedures as listed in Table 1 of OpSpec/MSpec/LOA C052, the aircraft and equipment must be listed in Table 1 of OpSpec/MSpec/LOA B034. (Not applicable when issuing part 91 LOA C052.)

5) Required Navigation Performance (RNP) approaches.

a) Approaches titled “RNAV (RNP)” are different from RNAV (GPS) approaches. Due to the more stringent aircraft eligibility standards and the associated prescribed procedures and training for the lower minima of the RNAV (RNP) approaches, they are labeled as “Authorization Required” (AR). OpSpec/MSpec/LOA C052 does not authorize RNP AR

operations. Authorization for RNAV (RNP) approaches is through nonstandard OpSpecs (300-series OpSpecs, which require responsible Flight Standards (FS) division approvals), such as OpSpec C384. (Refer to the current edition of AC 90-101, Approval Guidance for RNP Procedures with AR.)

b) Foreign RNP-like procedures not designed to U.S. RNP special aircraft and aircrew authorization required (SAAAR) criteria are authorized with a nonstandard C358 authorization, which requires responsible FS division concurrence.

6) Three groups of IAPs may be authorized in OpSpec/MSpec/LOA C052:

a) Nonprecision Approach (NPA). Column one of Table 1 specifies the NPA procedures without vertical guidance that are authorized by OpSpec/MSpec/LOA C052. Operators must ensure the aircraft will not go below the minimum descent altitude (MDA) without the required visual references specified in part 91, § 91.175.

1. Operators authorized OpSpec/MSpec/LOA C073 in conjunction with C052 may momentarily descend below the MDA when executing a missed approach.

2. The International Civil Aviation Organization (ICAO) term for an airport surveillance radar (ASR) approach is surveillance radar approach (SRA). Belgium labels these approaches as “SRE.” Select “ASR/SRA/SRE” in column one to authorize these approaches.

b) APV. Column two of Table 1 provides for the authorization of APV. These approaches provide vertical guidance, but do not meet the same standards as precision approach systems (e.g., instrument landing system (ILS) and GLS). These APVs are trained using an approved method that allows descent to a published decision altitude (DA).

1. APV approaches may contain LPV minima requiring wide area augmentation system (WAAS) and LNAV/VNAV minima that may be flown with either barometric vertical navigation (baro-VNAV) or WAAS-based VNAV. These are authorized in column two of Table 1 of OpSpec/MSpec/LOA C052. See subparagraph C below to determine applicable lines of minima. The AIM and the approach chart legend also have this information.

2. Aircraft accomplishing RNP approaches (RNAV (GPS) or RNAV (GNSS)) are required to monitor lateral and, if approved for operational credit, vertical guidance deviations. For baro-VNAV approach operations on an RNP approach using the LNAV/VNAV minima, the current vertical deviation limits are +100/-50 feet. Aircraft qualified using AC 20-138 deviation display requirements for navigation may use a vertical deviation limit of ±75 feet (or a smaller value). This information must be published in the AFM or a Supplemental Type Certificate (STC), or verified by the Aircraft Evaluation Division (AFS-100).

3. To authorize RNAV APVs, select “RNAV (GPS)” (for part 97 approaches) or “RNAV (GNSS)” (for foreign approaches) from the selectable menu for column two of Table 1 of OpSpec/MSpec/LOA C052.

c) CAT I Precision IAPs. Column three of Table 1 provides for the authorization of CAT I precision IAPs from an electronic glideslope (GS) (ILS or GLS). “RNAV/ILS” in

column three may only be selected in C052 if the operator meets the requirements in OpSpec/MSpec/LOA C063. For example, the United Arab Emirates publishes approach plates for Dubai titled, “RNAV ILS” or “ILS RNAV.” The RNAV portion of the approach constitutes an RNAV Standard Terminal Arrival Route (STAR).

Figure 3-66E. Sample C052 Table 1 – Authorized Instrument Approach Procedures

Nonprecision Approaches Without Vertical Guidance	Approaches With Vertical Guidance (APV)	Precision Approach Procedures (ILS & GLS)
ASR/SRA/SRE	LDA w/glideslope	ILS
AZI	RNAV (GPS)	PAR
AZI/DME	RNAV (GNSS)	ILS/DME
AZI/DME/BC	SDF w/glideslope	RNAV/ILS
GPS	LOC BC w/glideslope	GLS
LDA		
LDA/DME		
LOC		
LOC BC		
LOC/DME		
NDB		
NDB/DME		
RNAV (GPS)		
VOR/DME RNAV		
SDF		
TACAN		
VOR		
VOR/DME		
LOC/BC/DME		

C. GPS Authorization. Volume 4, Chapter 1, Section 2 provides more extensive guidance on GPS and GPS WAAS equipment. The applicant must show that it has the ability to safely conduct GPS operations.

1) GPS Approaches. GPS is one of the primary Navigational Aids (NAVAID) provided by the U.S. Government for use in the U.S. National Airspace System (NAS) and worldwide. GPS approach procedures have evolved from overlays of existing conventional approaches to hybrid procedures and standalone GPS approaches. RNAV approaches on which GPS can be used as a primary NAVAID contain “GPS” in the title (e.g., “VOR or GPS RWY 24,” “GPS RWY 24,” “GLS RWY 24R,” or “RNAV (GPS) RWY 24”).

2) WAAS. WAAS was developed to improve the accuracy, integrity, and availability of GPS signals. Most WAAS receivers support all basic GPS approach functions and some may provide additional capabilities. One of the major improvements provided by WAAS is the ability to generate an electronic glidepath, independent of ground equipment or barometric aiding. There are differences in the capabilities of the WAAS receivers. Some approach-certified receivers will only support a glidepath with performance similar to baro-VNAV, and are authorized to fly the LNAV/VNAV line of minima on the RNAV (GPS) approach charts. Receivers with additional capabilities, such as update rate and integrity limits are authorized to fly the LPV or LP line of minima. WAAS approach procedures may provide LPV, LNAV/VNAV, LP, and LNAV minima.

3) GBAS. An additional augmentation system, GBAS was developed to provide precision approaches similar to ILS at airfields. These precise approaches are based on GPS signals augmented by ground equipment. The approaches that use the GBAS equipment are referred to as GLS approaches.

a) Similar to LPV and ILS precision approaches, GLS provides lateral and vertical guidance. By design, due to its nearly identical performance standards to ILS in terms of accuracy, integrity, availability, and continuity, GLS performs as an “ILS look-alike” system from the pilot’s perspective. Portions of the GLS approach prior to and after the Final Approach Segment (FAS) may be based on RNAV or RNP segments. Therefore, a switch transition between RNAV and GLS modes may be required.

b) Additional training may be required to authorize GLS approach and landing operations for commercial operators. If the operator is authorized to fly GLS approaches, the pilot must be able to conduct all stages of a GLS approach, including different types of missed approaches. If you have any questions on GLS training issues, contact AFS-400 at 202-267-8790.

D. Pilot Training and Qualification. Pilot training and qualification for all authorized instrument approach operations must meet the requirements in:

- The approved training program, as applicable;
- Title 14 CFR parts 61, 91, 121, 125, and 135, as applicable; and
- Advanced Qualification Program (AQP) requirements, if applicable.

NOTE: The current edition of AC 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations, provides a method of compliance with differences in training and qualification between aircraft.

E. Authorized Criteria for Approved IAPs. For operations to all U.S. airports, operators are authorized to execute instrument approach operations on IAPs that have been published:

- 1) Under part 97.

2) Under criteria in the current edition of FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).

3) Under any other criteria authorized by AFS-400.

4) By the U.S. military agency operating the U.S. military airport.

NOTE: All published Standard Instrument Approach Procedures (SIAP) in the United States meet this requirement.

F. Runway Visual Range (RVR). Touchdown zone (TDZ) RVR is controlling for all operations authorized in C052. All other RVR reports are advisory. A midfield RVR report may substitute for an inoperative TDZ RVR report.

G. Continuous Descent Final Approach (CDFA) Technique. CDFA is a specific technique for flying the FAS of an IAP as a continuous descent, without level-off, from an altitude at or above the final approach fix (FAF) altitude, typically to a point approximately 50 feet above the runway threshold or the point where the flare will begin. For approaches that do not use LNAV/VNAV, LPV, or an ILS/GLS glidepath, a CDFA technique is recommended. When electronic or a pre-stored computed vertical guidance is not used, Vertical Speed (VS) or Flight Path Angle (FPA) may be used to achieve a CDFA profile. Compared to the “step down” descent approach technique, where the aircraft descends step-by-step prior to the next minimum altitude, a CDFA technique has safety and operational advantages, such as standardization of procedures, simplification of the decision process (one technique and one decision at one point), and use of a stable flightpath. However, precision approach obstacle penetration is not provided.

1) When using a CDFA technique, the decision point to determine if the flightcrew has the required visual references in sight to continue below the MDA may only be treated like a DA in reference to approach profiles and procedures. The operator must add an altitude increment to the MDA (e.g., 50 feet) to determine the altitude at which the missed approach must be initiated in order to prevent descent below the MDA or flight beyond the missed approach point (MAP).

2) The operator should ensure, prior to conducting CDFA, each flightcrew member intending to fly CDFA profiles undertakes training appropriate to the aircraft, equipment, and the different kinds of IAPs to be flown.

H. Reduced Precision CAT I Landing Minima. C052 specifies the equipment usage requirements and part 97 SIAP depiction required for reduced CAT I landing minima. Credit is given for flight director (FD), autopilot, and Head-Up Display (HUD) usage. The POI should allow the use of 1800 RVR minima to runways without centerline (CL) lighting or TDZ lighting, provided the SIAP contains a straight-in ILS minimum with the chart note, “RVR 1800 Authorized with use of FD or AP or HUD to DA.” Additionally, the operator issued C052 is allowed to continue to use 1800 RVR line of minima on SIAPs without the above procedural note when the TDZ and/or CL lights are inoperative, if the approach is conducted in accordance with the equipment requirements outlined in C052. This is also reflected in the published inoperative components table for IAPs.

1) FAA Approval. Operators may continue to use the standard CAT I minima based solely on ground lighting systems without alteration of current authorizations or procedures. Operators can utilize reduced CAT I landing minima, provided the SIAP contains a straight-in ILS minimum with the chart note, “RVR 1800 Authorized with use of FD or AP or HUD to DA.”

2) Conditions of Approval. Before issuing the C052 authorization to use reduced CAT I minima based on aircraft equipment and operation, inspectors shall ensure that each operator meets the following conditions:

a) **Aircraft and Associated Aircraft Systems.** The authorized aircraft must be equipped with an FD, autopilot, or HUD that provides guidance to DA. The FD, autopilot, or HUD must be used in approach mode (e.g., tracking the Localizer (LOC) and GS). Inspectors must establish that the FD, autopilot, or HUD are certified for use down to an altitude of 200 feet above ground level (AGL) or lower.

b) **Flightcrew Procedures.** The flightcrew must use the FD, autopilot, or HUD to DA or to the initiation of a missed approach, unless visual references with the runway environment are established, thus allowing safe continuation to a landing. If the FD, autopilot, or HUD malfunctions or becomes disconnected, the flightcrew must execute a missed approach unless the runway environment is in sight.

c) **Flightcrew Qualification.** Each member of the flightcrew must have demonstrated proficiency using the FD, autopilot, or HUD (as appropriate) on the most recent instrument proficiency check (IPC) required in part 61, §§ 61.57(d) and 61.58; § 91.1069; part 121, § 121.441; part 125, § 125.291; and part 135, § 135.297 (as applicable), or in an approved AQP.

I. Instrument Approach Operations at Foreign Airports. C052 specifies the requirements for nonprecision, APV, and precision approach criteria at foreign airports.

1) The procedure must be constructed by the foreign State using criteria that is derived from (or based on) U.S. TERPS or ICAO Doc 8168, Procedures for Air Navigation Services—Air Operations, or it must be based on other criteria approved by AFS-400.

2) Visibility minima must be based on U.S. criteria, European Union (EU) or European Union Aviation Safety Agency (EASA) criteria, or the criteria in ICAO Doc 9365, Manual of All-Weather Operations.

3) The MDA/minimum descent height (MDH) or DA/decision height (DH) must be at least 200 feet height above touchdown (HAT) or height above threshold (HATh) unless otherwise authorized by an OpSpec/MSpec/LOA.

4) Sequenced flashing lights are not required when determining if the Approach Light System (ALS) is equivalent to U.S. standards.

5) This section also specifies the requirements for determining DA/MDA when an Obstacle Clearance Limit (OCL) or Obstacle Clearance Altitude (OCA) is specified.

J. PRM Approaches. OpSpec/MSpec/LOA C052 includes a selectable subparagraph to authorize PRM approaches. In order to authorize PRM approaches, the operator must comply with the PRM qualifications and training presented below. Part 91 operators do not require authorization for U.S., domestic PRM operations. Inspectors should advise part 91 operators to consult the AIM for guidance on PRM procedures. Part 91 operators may request PRM authorization in LOA C052, as described in subparagraph A4) above. Part 91 operators are not required to comply with the PRM requirements presented below.

1) Pilot Training. Prior to conducting PRM approach and landing operations, pilots must successfully complete the certificate holder's (CH) or operator's PRM training. Training materials must include a published PRM approach chart and associated Attention All Users Page (AAUP) materials, the AIM, related Notices to Air Missions (NOTAM), and the latest available FAA produced and approved PRM slide presentation, titled "Precision Runway Monitor (PRM) Pilot Procedures," that each pilot must view and which appears on the FAA's website at https://www.faa.gov/training_testing/training/prm/.

2) PRM Approaches. Where parallel runway centerlines (RCL) are less than 4,300 feet apart, but no less than 2,500 feet, simultaneous PRM approaches may be conducted. Similarly, where parallel RCLs are 3,000 feet apart or less, but no less than 750 feet, simultaneous offset instrument approaches (SOIA) may be conducted using PRM approaches. Those approaches have "PRM" and the words "simultaneous close parallel" or "close parallel" in the title block. Air traffic control (ATC) provides one PRM controller for each runway to provide intrusion protection for the no transgression zone (NTZ) located equidistant between the two final approach courses. Depending on the runway spacing and whether or not the final approach is offset, high update rate surveillance may or may not be required to conduct PRM approaches. Regardless of the surveillance in use, all other PRM approach requirements are applicable. Pilots need not know which radar system is in use, as flight procedures are the same in either case. Utilization of vertical guidance is required for all PRM approaches. Different types of PRM approaches to the same runway are procedurally equivalent. Therefore, pilots may request a different type of approach to the same runway (e.g., the RNAV (GPS) PRM approach in lieu of the ILS PRM or localizer type directional aid (LDA) PRM approach); however, they may only conduct the approach when specifically cleared to do so by ATC.

3) Dual Communications. Aircraft that conduct PRM approaches must be capable of simultaneously monitoring the audio from two separately tuned communications receivers set to different frequencies.

4) The Breakout Maneuver. Working with industry, the FAA conducted extensive analysis of simulation data and determined that the implementation of PRM and SOIA approach operations to closely spaced parallel runways requires additional flightcrew training. The primary focus of this training is to raise each pilot's situational awareness in PRM operations.

a) **Traffic Alert.** One important element of the additional training is the pilot's understanding of the difference between a normal missed approach initiated by a pilot, and a breakout initiated by a PRM final monitor controller. It must be clear to flightcrews that the words "Traffic Alert," when used by the final monitor controller, signal critical instructions that

the pilot must act on promptly to preserve adequate separation from an airplane straying into the adjoining approach path.

b) ATC Breakout Maneuver Command to Turn and Descend, or Climb. The flightcrew must immediately follow the final monitor controller's vertical (climb/descend) and horizontal (turn) commands. If the flightcrew receives an ATC "Traffic Alert" and concurrently a Traffic Alert and Collision Avoidance System (TCAS) Resolution Advisory (RA), the flightcrew will simultaneously continue to turn to the controller's assigned heading and follow the vertical guidance provided by the TCAS RA.

NOTE: In a breakout, ATC will never command a descent below the applicable minimum vector altitude (MVA), thus assuring that no flight will be commanded to descend to lower than 1,000 feet above the highest obstacle during a breakout.

c) Time-to-Turn Standard. Responding to an ATC-issued breakout instruction in an expeditious manner is of paramount importance. While there is no specific standard, experience indicates pilots should be able to begin the turn in 10 seconds or less, and achieve a bank angle commensurate with safety of between 20 and 30 degrees. The operator must show that its pilots can readily meet this time-to-initiate-turn standard prior to the POI authorizing PRM approaches in OpSpec/MSpec C052. The operator must demonstrate its ability to meet this standard by having representative pilots perform the breakout maneuver while the POI or the POI's designated representative observes. The demonstration must conform to procedures contained in the operator's approved operating manual for its flightcrews. The operator should submit procedures to its POI for this authorization. Flightcrews are required to manually fly the breakout maneuver unless otherwise approved by AFS-200 for part 121 or 135 CHs, or by AFS-800 for part 91K or 125 operators (AFS-200/AFS-800 must have concurrence from AFS-400 to approve breakout in auto modes).

5) PRM Approaches and the Use of TCAS. TCAS may be operated in Traffic Alert (TA)/RA mode while executing PRM approaches. However, when conducting these operations, pilots must understand that the final monitor controller's instruction to turn is the primary means for ensuring safe separation from another airplane. Pilots must bear in mind that TCAS does not provide separation in the horizontal plane; TCAS accomplishes separation by commands solely in the vertical plane. Therefore, during final approach, only the final monitor controller has the capability to command a turn for lateral separation. Flightcrews are expected to follow any ATC instruction to turn.

a) ATC Command to Turn With TCAS RA. In the unlikely event that a flightcrew should simultaneously receive a final monitor controller's command to turn and a TCAS RA, the flightcrew must follow both the final monitor controller's turn command and the TCAS RA's climb or descent command.

b) TCAS RA Alone. In the extremely unlikely event that an RA occurs without a concurrent breakout instruction from the final monitor controller, the pilot should follow the RA and advise the controller of the action taken as soon as possible. In this instance, it is likely that a breakout command would follow.

c) TCAS Not Required. An operative TCAS is not required to conduct PRM approaches.

OPSPEC/LOA C054—SPECIAL LIMITATIONS AND PROVISIONS FOR INSTRUMENT APPROACH PROCEDURES AND IFR LANDING MINIMUMS.

A. General. C054 is issued to all operators conducting operations under 14 CFR parts 121 and 125 (including part 125 Letter of Deviation Authority (A125 LODA) holders). It is also issued to operators who conduct turbine-powered airplane operations under 14 CFR part 135. It is not issued to part 135 operators who do not operate turbine-powered airplanes unless that operator also conducts operations under part 121. C054 specifies the Runway Visual Range (RVR) landing minimum equivalent to the published RVR landing minimum that must be used by high-minimum pilots (less than 100 hours in aircraft type).

B. Pilot-In-Command (PIC) Qualifications. For parts 121 and 135 operations, C054 also specifies that before a PIC of a turbojet can conduct an instrument approach with visibility conditions reported to be below $\frac{3}{4}$ statute mile (sm) or RVR 4000 (basic turbojet landing minimums), the pilot must be specifically qualified and authorized to use standard landing minimums. See Volume 4, Chapter 2 for information on the qualification and authorization requirements to use the standard landing minimums.

C. PIC Takeoff Guidance. Further, for parts 121 and 135 operations, after the PIC has been qualified to use Lower Landing Minimums (LLM), and the destination visibility conditions are forecast to be less than $\frac{3}{4}$ sm or RVR 4000, the pilot of a turbojet airplane shall not take off unless:

1) The destination runway length has been determined prior to takeoff to be at least 115 percent of the runway field length required by the provisions of part 121, § 121.195(b) or part 135, § 135.385(b), as appropriate; and

2) Precision instrument (all weather) runway markings or runway centerline (RCL) lights must be operational on that runway unless authorized to conduct enhanced flight vision system (EFVS) operations and use EFVS operational minimums.

3) Once airborne, additional consideration of landing field length by the flightcrew is not required for normal operations. If unforecast adverse weather or failures occur, the crew and aircraft dispatchers should consider any adverse consequences that may result from a decision to make a landing. The runway length needed in these changed circumstances must be determined by considering the runway in use, runway conditions, current weather, Aircraft Flight Manual (AFM) limitations, operational procedures, and aircraft equipment status at the time of landing.

OPSPEC/MSPEC/LOA C055—ALTERNATE AIRPORT IFR WEATHER MINIMUMS.

A. Applicability. OpSpec/MSpec/LOA C055 is an optional authorization available to the operator conducting airplane operations under 14 CFR parts 91K, 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. C055 provides a table from which the operator derives alternate airport instrument flight rules (IFR) weather minimums in those cases that require an alternate airport.

NOTE: Technical questions regarding the alternate airports and approaches authorized by C055 should be directed to the Flight Technologies and Procedures Division (AFS-400) at 202-267-8790. Questions regarding the issuance of C055, including operational and training requirements, should be directed to the Air Transportation Division (AFS-200) at 202-267-8166, or the General Aviation and Commercial Division (AFS-800) at 202-267-1100.

B. Definitions. The following applicable definitions are provided in OpSpec/MSpec/LOA A002:

1) Decision Altitude (Height) (DA(H)). “DA(H) is a specified minimum altitude in an instrument approach procedure by which a missed approach must be initiated if the required visual reference to continue the approach has not been established. The ‘altitude’ value is typically measured by a barometric altimeter; the ‘height’ value (H) is typically a radio altitude equivalent height above the touchdown zone (HAT) used only for advisory reference and does not necessarily reflect actual height above underlying terrain. [This definition is consistent with both current U.S. operator usage and ICAO international agreements.]”

2) Minimum Descent Altitude (Height) (MDA(H)). “MDA(H) is the lowest altitude in an instrument approach procedure to which a descent is authorized on final approach or during circle-to-land maneuvering. The ‘altitude’ value is typically measured by a barometric altimeter; the ‘height’ value (H) is typically a radio altitude equivalent height above the touchdown zone (HAT) or height above airport (HAA) published elevation. The (H) is used only for advisory reference and does not necessarily reflect actual height above underlying terrain. [This definition is consistent with both current U.S. operator usage and ICAO international agreements.]”

C. Airports With at Least One Operational Navigational Facility. The first row of Table 1, Alternate Airport IFR Weather Minimums, of C055 is for airports with at least one operational navigational facility providing a straight-in Nonprecision Approach (NPA) procedure, a Category (CAT) I precision approach, or, when applicable, a circling maneuver from an instrument approach procedure (IAP). The operator obtains the required ceiling and visibility by adding 400 feet (ft) to the MDA(H) or, when applicable, the authorized DA(H); and by adding 1 statute mile (sm) (1,600 meters (m)) to the authorized landing minimum. Additives are applied only to the height value (rounded up to the nearest 100 ft value if not a multiple of 100) to determine the required ceiling.

D. Airports With at Least Two Operational Navigational Facilities. The second row of Table 1 of C055 is for airports with at least two operational navigational facilities, each providing a straight-in NPA procedure or a straight-in CAT I precision approach procedure to different suitable runways. The operator obtains the required ceiling and visibility by adding 200 ft to the higher MDA(H) or DA(H) of the two approaches used; and by adding ½ sm (800 m) of visibility to the higher authorized landing minimum of the two approaches used. Additives are applied only to the height value (rounded up to the nearest 100 ft value if not a multiple of 100) to determine the required ceiling.

NOTE: For operations outside the United States, because of variations in the international metric weather forecasting standard, 700 m may be used in lieu of 800 m.

E. Higher Alternate Minimums When Using Two Operational Navigational Facilities. In some cases, it is possible to have higher alternate minimums when using two operational navigational facilities than when using one.

1) For example, if an airport with one operational navigational facility providing a straight-in NPA procedure had an MDA(H) height value of 400 ft and $\frac{3}{4}$ sm visibility, the operator would have alternate minimums of 800 ft and $1\frac{3}{4}$ sm visibility (i.e., 400 ft (procedure MDA(H)) + 400 ft and $\frac{3}{4}$ sm (procedure visibility) + 1 sm).

2) In an example where an airport has two operational navigational facilities each providing a straight-in approach procedure to a different suitable runway, one straight-in approach may have a DA(H) or MDA(H) height value of 400 ft and $\frac{3}{4}$ sm visibility and the other straight-in approach has a height value of 600 ft and $1\frac{3}{4}$ sm visibility. The alternate minimums would be 800 ft and $2\frac{1}{4}$ sm (i.e., 600 ft (highest height value of the two approaches) + 200 ft = 800 ft and $1\frac{3}{4}$ sm (highest required visibility of the two approaches) + $\frac{1}{2}$ sm = $2\frac{1}{4}$ sm).

3) In some instances, deriving alternate minimums utilizing only one operational navigational facility will provide for lower minimums than utilizing the two operational navigational facility method. When this situation exists, the operator may elect to consider the airport as having only one operational navigational facility and, therefore, choose either method contained in Table 1 of C055 to derive the lowest alternate minimums for that airport.

NOTE: In determining alternate airport weather minimums, the operator must not use any published IAP, which specifies that alternate airport weather minimums are not authorized (NA). On charts produced by the government, this is depicted by an “Alternate Minimums Not Authorized” symbol, $\triangle NA$. Other providers, such as Jeppesen, may not use this symbol.

F. Using Two Different Runways. Two different runways may be the different ends of the same physical runway surface (e.g., runway 4 and runway 22 are two different runways). When determining the suitability of a runway, wind (including gust) must be forecast to be within operating limits (including reduced visibility limits) and should be within the manufacturer’s maximum demonstrated crosswind. All conditional forecast elements below the lowest applicable operating minimums must be taken into account. The operator should also take into account any other potential runway limitations, such as Notices to Air Missions (NOTAM), which may affect the landing at the estimated time of arrival (ETA).

G. Credit for Alternate Minimums. OpSpec/MSpec/LOA C055 allows credit for alternate minimums based on engine inoperative CAT II or CAT III capability. Additional selectable rows for Table 1 of C055 list the appropriate credit based on either CAT II or CAT III. To authorize this credit, Principal Operations Inspectors (POI) will place a check mark in the appropriate selectable row of Table 1. When authorized in C055, flightcrews who are CAT II and/or CAT III trained and qualified may take credit for engine inoperative CAT II/III qualified

aircraft and adjust the minimums accordingly. The alternate minimums are based on CAT III engine inoperative requirements. The following are some, but not all, of those requirements. Refer to the current edition of Advisory Circular (AC) 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout, for further engine inoperative guidance.

- 1) The aircraft receives approval for engine inoperative CAT III.
- 2) The operator establishes appropriate procedures.
- 3) The flightcrew receives performance and obstruction clearance information.
- 4) The flightcrew receives appropriate aircraft configuration information, wind limits, and other appropriate information.

H. Use of Global Positioning System (GPS)-Based IAP Minimums at an Alternate Airport. Alternate airport planning policy for the operator is based on their equipage. Use of GPS-based IAP minimums as the departure, en route, or destination alternate airport is authorized in the U.S. National Airspace System (NAS) and in any foreign State where GPS-based (or other Global Navigation Satellite System (GNSS)-based) approaches are authorized for alternate planning. To determine if a foreign State authorizes GPS-based (or other GNSS-based, including Satellite-Based Augmentation System (SBAS)-based) approaches for alternate planning, consult the applicable Aeronautical Information Publication (AIP). The wide area augmentation system (WAAS) navigation-equipped operator may still plan for GPS-based IAP (e.g., GPS, Area Navigation (RNAV) (GPS), or RNAV Required Navigation Performance (RNP)) at both the destination and the alternate airport. The GPS navigation-equipped operator with fault detection and exclusion (FDE) capability, but without WAAS navigation equipment, may now plan for GPS-based IAP at either the destination or the alternate airport. Finally, the GPS- or WAAS-equipped operator with barometric vertical navigation (baro-VNAV) equipment may plan to use this capability at either destination or alternate airports.

- 1) Use Table 2, GPS-Based IAP Authorizations, of C055 to authorize GPS-based IAP minimums at the alternate airport. Input airplane information in the “Airplane M/M/S” column of Table 2. In the “Conditions and Limitations” column, select the applicable optional subparagraphs b(8)(e)(i) through (iv) for parts 91K, 121, 125, and 135 or subparagraphs 2h(5)(A) through (D) for part 125 LODA holders.
- 2) If there are mixed fleets (e.g., retrofits or other changes), verify that the operator has a method to track various equipage levels of the fleet, and provides that information to appropriate flightcrew and ground personnel.
- 3) If the user is not equipped with FDE or WAAS, select “N/A” from the drop-down list in the “Conditions and Limitations” column and type “N/A” in the “Remarks” column of Table 2 of C055.
- 4) For additional clarity, refer to the C055 job aid under the Guidance tab in WebOPSS and see Figure 3-196, GPS-Based Instrument Approach Procedures.

I. Use of GPS-Based IAP at an Extended Operations (ETOPS) Alternate Airport.

The use of a GPS-based IAP at an ETOPS alternate airport requires prior approval from AFS-200. A part 121 and/or 135 certificate holder (CH) seeking this type of authorization will need to show that it has adequate procedures, flight planning capability, pilot training, and for part 121 operations, aircraft dispatcher or flight following personnel training (based on the kind of operation, flag or supplemental) to support the authorization. The responsible Flight Standards office with oversight responsibility of a CH seeking this level of authorization is responsible for obtaining AFS-200's approval. The responsible Flight Standards office must request this approval via memo and provide the appropriate supporting documentation to AFS-200 (see subparagraph I3) below). There are two optional subparagraph b(10) text selections available in OpSpec C055 for parts 121 and 135 (including part 121/135 combination certificates). Both options authorize the use of a GPS-based IAP at an ETOPS alternate. Option 1 allows a CH to use a GPS-based IAP when receiver autonomous integrity monitoring (RAIM) predictions indicate there will be a limited unavailability of RAIM at the ETOPS alternate. Option 2 authorizes the use of a GPS-based IAP at an ETOPS alternate airport provided there is no predicted loss of RAIM. Both options are based on specific conditions and limitations. The responsible Flight Standards office will select one of the two options. The office may not grant the CH the authority to exercise both options. The responsible Flight Standards office's memo to AFS-200 must specify which optional subparagraph b(10) the office is seeking approval to authorize.

1) Option 1. This selectable option allows for use of a GPS-based IAP at a designated ETOPS alternate when, from the earliest time to the latest time the airplane would arrive at the ETOPS alternate, a limited unavailability RAIM is predicted at the airport. This is allowable only when all of the conditions and limitations of this option are followed. Use of a GPS-based IAP at a designated ETOPS alternate airport under Option 1 may be authorized with approval from AFS-200, in accordance with the procedures listed below.

a) The CH is authorized to use GPS-based IAP that meet the requirements in subparagraph b(8) of OpSpec C055 and the alternate airport weather minimums derived from Table 1 of C055 to designate an ETOPS alternate airport.

b) The CH may designate an ETOPS alternate airport that has a GPS-based IAP as the only IAP at that airport if the CH meets the following requirements:

1. The CH must establish RAIM prediction for any designated ETOPS alternate airport during the entire time from the earliest to the latest time an airplane would arrive at the designated ETOPS alternate airport.

2. In the event of a predicted, continuous loss of RAIM (from the earliest time to the latest time the airplane would arrive), the CH must not use the airport as an ETOPS alternate airport.

3. In the event of any limited unavailability of RAIM, the CH must:

a. Notify the flightcrew of any limited unavailability of RAIM at that ETOPS alternate.

b. Prior to departure, ensure adequate fuel is onboard the airplane to account for the time period of predicted RAIM unavailability at the ETOPS alternate. This fuel must be calculated by adding the fuel required to account for the time of the predicted RAIM unavailability to the fuel required to fly to the affected ETOPS alternate from the Equal Time Point (ETP).

c. Ensure the time of predicted RAIM unavailability plus the time to and from the ETP to the ETOPS alternate airport does not exceed the time specified for the airplane's most time-limited ETOPS significant system (including cargo fire suppression) minus 15 minutes.

c) The CH must document and retain all RAIM predictions and NOTAM reviews as part of the dispatch or flight release in accordance with part 121, § 121.695 or § 121.697, as applicable.

2) Option 2. This option does not allow for any unavailability of RAIM at the ETOPS alternate airport during the period from the earliest time to the latest time the airplane would arrive at the ETOPS alternate. Use of a GPS-based IAP at an ETOPS alternate under Option 2 may be authorized with approval from AFS-200, in accordance with the procedures listed below.

a) The CH is authorized to use GPS-based IAP that meet the requirements in subparagraph b(8) of OpSpec C055 and the alternate airport weather minimums derived from Table 1 of C055 to designate an ETOPS alternate airport.

b) The CH may designate an ETOPS alternate airport that has a GPS-based IAP as the only IAP at that airport if the CH meets the following requirements:

1. The CH must establish RAIM prediction for any designated ETOPS alternate airport during the entire time from the earliest to the latest time an airplane would arrive at the designated ETOPS alternate airport.

2. In the event of any predicted loss of RAIM, limited or continuous (at any time during the period from the earliest time to the latest time the airplane would arrive), the CH must not use the airport as an ETOPS alternate airport.

c) The CH must document and retain all RAIM predictions and NOTAM reviews as part of the dispatch or flight release in accordance with § 121.695 or § 121.697, as applicable.

3) Required Documentation for Submission to AFS-200. Submit the request to the manager of AFS-200 for approval to issue the authority to a CH to use a GPS-based IAP at an ETOPS alternate airport. AFS-200 will not approve the responsible Flight Standards office to issue the authorization until AFS-200 determines the supporting documentation is adequate to support the authorization. Along with the request memo, the responsible Flight Standards office must include the following information:

- a) A copy of the CH’s RAIM prediction procedures.
- b) A sample ETOPS flight plan and dispatch release that includes, or has attached to it, RAIM predictions. For Option 1, the flight plan must also depict the fuel account for the predicted RAIM unavailability at the ETOPS alternate.
- c) A copy of the CH’s pilot/aircraft dispatcher/flight following personnel (depending on kind of operation) training that addresses this particular authority.

Figure 3-196. GPS-Based Instrument Approach Procedures

GPS-Based IAP at Either Destination <u>or</u> Alternate (not both)					
Paragraph Reference	TSO	FDE	BaroVNAV	OpSpec/MSpec /LOA	Alternate Restrictions
i	TSO-C129() or TSO-C196()	yes	no	C052	LNAV MDA(H)
ii	TSO-C129() or TSO-C196()	yes	yes	C052	LNAV MDA(H) or LNAV/VNAV DA(H)
ii	TSO-C129() or TSO-C196()	yes	yes	C052 & C384	RNAV (RNP) no lower than RNP 0.30 DA(H)
GPS-Based IAP at Destination <u>and</u> Alternate (may be either or both)					
iii	TSO-C145() or TSO-C146()	yes	no	C052	LNAV MDA(H)
iv	TSO-C145() or TSO-C146()	yes	yes	C052	LNAV MDA(H) or LNAV/VNAV DA(H)
iv	TSO-C145() or TSO-C146()	yes	yes	C052 & C384	RNAV (RNP) no lower than RNP 0.30 DA(H)

J. Definition of “Two Operational Navigational Facilities.”

1) The words “two operational navigational facilities” mean that in the event there is a failure of one facility, the other would be operational. For example, an airport has instrument landing system (ILS) runway 2 with 110.9 as the frequency and I-EZD as the identifier. Additionally, this airport has an ILS or Localizer (LOC) runway 34 with 110.7 as the frequency and I-BNE as the identifier. These are separate navigational facilities, and if both are operational, they fit the definition of “two operational navigational facilities.”

2) At some airports, there may be ILS approaches serving both ends of the same runway and utilizing a common frequency. Although the frequency is the same, there is a different identifier for each runway end. For example, an airport has ILS runway 9 with 110.9 as the frequency and I-UYO as the identifier. Additionally, this airport has ILS runway 27, which uses the same frequency of 110.9 and I-GHI as the identifier. These are separate navigational facilities, and if both are operational, they fit the definition of “two operational navigational facilities.”

K. Helicopter Authorizations. For helicopter authorizations, see Volume 3, Chapter 18, Section 7, OpSpec/MSpec H105.

OPSPEC C056—IFR TAKEOFF MINIMUMS, PART 121 OPERATIONS—ALL AIRPORTS. C056 is issued to all operators who conduct operations under 14 CFR part 121.

A. General. C056 did not change in policy but was split into two paragraphs for programming purposes in the new automated Operations Safety System (OPSS): C056 and C078/C079.

B. Using Lower-Than Standard Takeoff Minimums. If an operator is not authorized to use lower-than-standard takeoff minimums, C078 will not be issued. See Volume 4, Chapter 2 for information concerning requirements an operator must meet before being authorized to use lower-than-standard takeoff minimums. If an operator conducts operations under both 14 CFR parts 121 and 135, C056 and C057 may need to be issued. For more information, see the following:

- Part 121, §§ 121.649 and 121.651(a)(1).
- Title 14 CFR part 91, § 91.175(f).
- Volume 4, Chapter 2.
- Flight Standardization Board (FSB) report for specific aircraft.

C. Availability to Part 91 Subpart K (Part 91K) Program Managers. This is not available or applicable to part 91K program managers. See § 91.1039(e).

OPSPEC C057—IFR TAKEOFF MINIMUMS, PART 135 OPERATIONS—ALL AIRPORTS. C057 is issued to all 14 CFR part 135 operators who conduct instrument flight rules (IFR) airplane operations to authorize an operator to use standard takeoff minimums or lower-than-standard takeoff minima that are equal to the lowest straight-in landing minimums (part 135, § 135.225(h)).

A. Issuance for Conducting IFR Standard Takeoff Minimums. C057 is issued for conducting IFR standard takeoff minimums, which are defined as 1 statute mile (sm) visibility or Runway Visual Range (RVR) 5000 for airplanes having two engines or fewer, and ½ sm visibility or RVR 2400 for airplanes having more than two engines. RVR reports, when available for a particular runway, must be used for all takeoff operations on that runway. All takeoff operations, based on RVR, must use RVR reports from the locations along the runway specified in this paragraph.

B. Single-Engine IFR (SEIFR) Authorization. The Principal Operations Inspector (POI), Principal Maintenance Inspector (PMI), and Principal Avionics Inspector (PAI) must coordinate the issuance of OpSpecs A046, C057, and D103 once the operator has met the requirements for SEIFR operations. All three OpSpec paragraphs must be issued for SEIFR authorization.

1) OpSpec A046 contains specific maintenance and operational limitations and provisions necessary for the authority to operate under IFR while carrying passengers in a single-engine airplane.

2) OpSpec C057 authorizes standard IFR takeoff minimums or lower-than-standard takeoff minima equal to the lowest straight-in landing minimums. SEIFR part 135 passenger-carrying operations are not authorized for lower-than-standard takeoff minimums at any airport without concurrence and authorization from the Office of Safety Standards (OSS), unless they are conducted in turbine-powered aircraft. The POI can authorize turbine-powered single-engine passenger-carrying aircraft to conduct lower-than-standard takeoff minima equal to the lowest authorized straight-in Category (CAT) I IFR landing minimum applicable to the certificate holder (CH) for that particular airport by selecting subparagraph d from the appropriate dropdown list in OpSpec C057. (Refer to § 135.225(i).)

3) OpSpec D103 contains additional maintenance requirements for airplanes operated in SEIFR operations.

C. Subparagraph Selectable for Issuance of C057. The following subparagraph is selectable for issuance in C057, if applicable:

“c. When takeoff minimums are equal to or less than the applicable standard takeoff minimum, the certificate holder is authorized to use a takeoff minimum equal to the lowest authorized straight-in Category I IFR landing minimum applicable to the certificate holder for that particular airport. The Touchdown Zone RVR report, if available, is controlling.”

D. Subparagraph Selectable for Issuance of C057 for Turbine-Powered, Single-Engine Airplanes. The following subparagraph is selectable for issuance in C057 for turbine-powered, single-engine airplanes:

“d. Notwithstanding the requirements of the ‘NOTE’ in subparagraph b above, the certificate holder is authorized lower than standard takeoff minimums for its 14 CFR part 135 single engine passenger-carrying operations in its turbine-powered single engine airplanes only per the limitations and provisions of C057 including subparagraph c.”

E. Authorizing Part 135 Operators to Use Takeoff Minimums Lower Than ½ Mile or RVR 1800. OpSpec C079 is applicable for authorizing the part 135 operator to use takeoff minimums lower than ½ mile or RVR 1800. Refer to the current edition of Advisory Circular (AC) 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, for information concerning requirements an operator must meet before being authorized to use lower-than-standard takeoff minima. OpSpec C079 is not authorized for SEIFR passenger-carrying operations.

F. Other Applicability and Authorizations. C057 is not applicable or available for 14 CFR part 91K program managers. Refer to part 91, § 91.1039(e). For helicopter authorizations, see OpSpecs H106 and H116.

OPSPEC/MSPEC/LOA C058—SPECIAL RESTRICTIONS FOR FOREIGN TERMINAL INSTRUMENT PROCEDURES.

A. General. C058 is issued only when the Principal Operations Inspector (POI) or Flight Standards Service (FS) office responsible for the geographic area where a foreign airport is located) finds it necessary to place special restrictions on a foreign terminal instrument procedure.

B. Purpose and Applicability of Restrictions. These special restrictions to foreign Terminal Instrument Procedures (TERPS) are applicable to U.S. air carriers (14 CFR parts 121 and 135) and program managers (14 CFR part 91K). The purpose of these special restrictions is to establish an equivalency between the foreign terminal instrument procedure and the International Civil Aviation Organization (ICAO) Procedures for Air Navigation Services—Aircraft Operations (PANS-OPS) or TERPS criteria.

C. Other Guidance. The Flight Procedures and Airspace Group (AFS-420) web page at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420/ftip contains a list of foreign TERPS that are currently restricted. If an operator conducts flights to any airport in that list, the POI must issue C058 with the name of the airport, airport identification, procedure identification, and special restrictions listed.

D. Helicopter Authorization. For helicopter authorization, see OpSpec/MSpec H107.

OPSPEC/MSPEC/LOA C059—SPECIAL AUTHORIZATION CATEGORY I (SA CAT I) INSTRUMENT APPROACH AND LANDING OPERATIONS.

A. General. Special Authorization (SA) Category (CAT) I operations are authorized by optional issuance of OpSpec C059 to certificate holders (CH) operating under 14 CFR parts 121, 125, and 135; MSPEC C059 to program managers operating under 14 CFR part 91K; and LOA C059 to 14 CFR part 91 operators and to 14 CFR part 125 Letter of Deviation Authority (LODA A125) holders.

1) The Flight Operations Group (AFS-410) has eliminated the previous requirements for CAT II-trained aircrew and CAT II-maintained aircraft for SA CAT I authorization. Additionally, the allowable equipment used as basis for SA CAT I authorization was expanded beyond the Head-Up Display (HUD) (e.g., Synthetic Vision Guidance System (SVGS)). These changes were published in Advisory Circular (AC) 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout, in July 2018. AFS-410 has also developed a separate OpSpec/MSpec/LOA C059 to issue optional SA CAT I authorization.

2) Operator authorization requirements, including demonstration and coordination requirements, vary by the type of application. For an explanation of these requirements, see Volume 4, Chapter 2, Section 3, Paragraph 4-215, Operator Authorization—SA CAT I, SA CAT II, or CAT II Runway Visual Range (RVR) 1000, and Figure 4-4, Special Authorization Category I, Special Authorization Category II, and Category II RVR 1000 Authorization Matrix.

B. Purpose. OpSpec/MSpec/LOA C059 is issued to authorize SA CAT I landing minimums as low as a 150-foot radio altimeter (RA) decision height (DH) and 1400 RVR to approved runways without touchdown zone (TDZ) lights and/or runway centerline (RCL) lights in accordance with the following limitations and provisions.

C. Aircraft Requirements. To conduct the SA CAT I operations authorized by C059, each airplane must be equipped with an operable manual flight guidance system (FGS) certified and maintained to support a DH of 150 feet or lower.

1) Required equipment approved as basis for SA CAT I authorization (e.g., HUD, SVGS) must provide each pilot with course and glidepath 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.

2) An aircraft type and/or system previously approved for SA CAT I, based upon HUD equipment, is considered to meet the requirements of subparagraph C1).

3) The currently approved equipment for SA CAT I authorization is limited to those available for selection in OpSpec/MSpec/LOA C059. Approval of additional or future FGS for SA CAT I authorization requires the Flight Technologies and Procedures Division's (AFS-400) approval.

4) The operator must use a two-pilot flightcrew in aircraft certified and equipped for two-pilot instrument flight rules (IFR). Single-pilot operations are not authorized for SA CAT I.

D. Aircrew Training Requirements. 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. For example, if an aircraft is equipped with both a HUD and an SVGS Head-Down Display (HDD), the operator may seek SA CAT I authorization independently on either FGS. In this specific case, the operator must then demonstrate proficiency in instrument approaches and landings using the HUD to SA CAT I minimums or lower (e.g., CAT II or CAT III) and also demonstrate proficiency in instrument approaches and landings using the SVGS to SA CAT I minimums.

E. Issuing OpSpec/MSpec/LOA C059.

1) With the exception of LOA C059 for part 91 operators, C059 does not require specific aircraft to be identified. It provides authorization for any/all appropriately equipped aircraft in the operator's fleet to conduct SA CAT I operations as long as the equipment and training requirements described in OpSpec/MSpec/LOA C059 are met. This avoids the need to reissue C059 whenever aircraft within an operator's fleet change.

2) For part 91 operators, specific aircraft are authorized for SA CAT I operations by listing the serial number, registration number, and make, model, and series (M/M/S) in Table 1 of LOA C059. Table 1 will be automatically populated based upon aircraft assigned "SA CAT I"

authorization in the operator's aircraft listing in the Web-based Operations Safety System (WebOPSS).

F. SA CAT I Operations at Foreign Facilities. Regarding SA CAT I operations at foreign airfields, the Principal Operations Inspector (POI) may authorize specific SA CAT I instrument approaches by selecting the approved foreign SA CAT I instrument approaches from the dropdown list in Table 1 (Table 2 for part 91) of OpSpec/MSpec/LOA C059. Foreign SA CAT I instrument approaches which have been evaluated and are approved for U.S. operators are listed on the "Foreign Facilities Approved for SA Category I and Category II/III Operations" spreadsheet located on the Flight Procedures and Airspace Group (AFS-420) website at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420/.

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

NOTE: For Next Generation Air Transportation System (NextGen) tracking, applications for approvals for this paragraph must be entered in the Operations Approval Portal System (OAPS) as indicated in Volume 3, Chapter 1, Section 1.

A. General. Category (CAT) II or CAT II and CAT III (CAT II/III) operations, including Special Authorization (SA) CAT II operations, are approved by issuance of OpSpec C060 to certificate holders (CH) for 14 CFR parts 121, 125, and 135; MSpec C060 to program managers for 14 CFR part 91K fractional ownership operations; and LOA C060 to operators for part 91 and part 125 Letter of Deviation Authority (LODA) holder operations. Guidance for authorizing helicopter CAT II or CAT II/III operations can be found in Volume 4, Chapter 2, Sections 2, 3, and 5. For 14 CFR part 129 operations, see Volume 12, Chapter 4, Section 4.

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

- 1) Issuing OpSpec/MSpec/LOA C060 for all initial CAT II or CAT II/III authorizations for each operator/program manager and each airplane type used by that operator/program manager. This includes SA CAT II authorizations.
- 2) Amending C060 to include an airplane make, model, and series (M/M/S) new to the operator/program manager.
- 3) Reducing CAT II or CAT III operating minimums for each operator and airplane.

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

- 1) The current edition of Advisory Circular (AC) 120-118, Criteria for Approval/Authorization of All Weather Operations (AWO) for Takeoff, Landing, and Rollout.

2) Volume 4, Chapter 2, Section 2, All Weather Operations Approach and Landing Concepts.

3) Volume 4, Chapter 2, Section 3, Safety Assurance System: Approval of U.S. Operators for Operations Below Standard Category I—Parts 91 (Other Than Small Category A), 91K, 121, 125, 125 LODA Holders, and 135.

4) Volume 4, Chapter 2, Section 5, Approval of Small Category A Aircraft for Category II Operations—Part 91.

5) Applicable Lower Landing Minimums (LLM) maintenance program approved by the assigned Avionics inspector in accordance with Volume 4, Chapter 2, Section 10, Safety Assurance System: Maintenance/Inspection Programs for Low Approach and Landing Minimums, Parts 91 (Large Aircraft), 91K, 121, 125, and 135.

D. Using OpSpec/MSpec/LOA C060 Templates. The C060 template is organized into sections applying to CAT II operations, CAT III operations, and sections applying to both operations. Standard 1200 Runway Visual Range (RVR) CAT II authorization is assumed for all operators receiving C060; 1000 RVR CAT II, SA CAT II, and CAT III authorizations are optional. SA CAT I authorization is available in OpSpec/MSpec/LOA C059. References below are to subparagraphs in OpSpec/MSpec C060. LOA C060 references would be to corresponding numbered subparagraphs.

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

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

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

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

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

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

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

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

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

E. Approved Airplanes and Operations.

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

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

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

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

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

NOTE: * 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.

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

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

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

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

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

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

a) CAT II airplanes typically have an AFM or AFMS statement showing compliance with the airworthiness performance and integrity criteria found in AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach.

NOTE: Airplanes used for SA CAT II or 1000 RVR CAT II operations require guidance or flight control systems (fail passive (FP) Head-Up Display (HUD) or autoland) showing compliance with the airworthiness and performance criteria found in AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout.

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

G. Approach/Landing Systems.

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

- a) Autopilot: autopilot approach coupler used to decision height (DH), followed by manual control landing.
- b) HUD: CAT II-certified HUD providing guidance to DH, flown under manual control.
- c) FP HUD: CAT III-certified FP HUD providing guidance at least to touchdown, flown under manual control.
- d) Autoland: any certified autoland system.
- e) Select the appropriate phrase for each M/M/S to place in the Approach/Landing System column: Autopilot, HUD, FP HUD, or Autoland. Any of the above approach/landing systems may be selected for 1600 RVR or 1200 RVR CAT II operations. If an operator desires to use two systems during approach (e.g., HUD monitored autopilot), only the primary control system in use needs to be listed. FP HUD or Autoland must be selected if operators conduct SA CAT II or 1000 RVR CAT II operations.

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

- a) If the operator is approved to conduct only CAT II operations (i.e., CAT III not authorized), the table will automatically populate with “NA.”
- b) Approach/landing systems:
 - 1. FP HUD.
 - 2. FP Autoland: any fail passive autoland system.
 - 3. Fail Operational (FO) Autoland: fail operational autoland system.
- c) Rollout systems:
 - 1. None: no rollout guidance or automatic rollout system.
 - 2. FP: any fail passive rollout system.
 - 3. FO: fail operational automatic rollout system.
- d) Select the appropriate phrase for each M/M/S to place in the Approach/Landing System column: FP HUD, FP Autoland, or FO Autoland. Also select the appropriate rollout system: None, FP, or FO.

H. Operational Minimums.

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

Table 3-133. Category II Operating Minimums

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

NOTE: # = If available

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

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

NOTE: The POI should issue an initial, interim authorization using the higher minimums, and reissue C060 authorizing lower minimums upon completion of the approval demonstration phases. Operator approval requirements are shown in Volume 4, Chapter 2, Section 3, Paragraph 4-216, CAT II/III Operator Authorization Process.

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

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

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

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

Table 3-134. Category III Operating Minimums

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

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

1. Select 700/700/300; or
2. Select 600/600/300 for airplanes having FP landing systems that have been authorized RVR 600 minimums under AC 120-28D, Paragraph 4.3.7, Category IIIa.

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

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

I. Special Operational Equipment and Limitations.

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

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

- AC 120-28,
- AC 120-29,

- AC 120-118,
- TC or STC, and
- AFS-400 concurrence letter.

3) If the AFM or AFMS describes acceptable performance both with and without certain items of equipment (that are not explicitly required by AC 120-28, AC 120-29, or AC 120-118), it must be determined how the operator/program manager intends to conduct CAT II/III operations and train flightcrews with those items of equipment. If the operator/program manager proposes to conduct operations both with and without certain equipment (such as autothrottle or autopilot), flightcrews must be trained for both situations, and the equipment does not need to be listed in Table 1 or Table 2 of C060.

J. Runway Field Length Requirements.

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

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

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

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

K. Airplane Maintenance. For CAT II or CAT III operations authorizations, the operator or program manager must have an approved LLM maintenance program, as described above in subparagraph C5). The maintenance program should detail a specific maintenance interval, periodic tests, and inspections required on systems and equipment used for LLM. The maintenance program should identify or contain system and equipment reliability tracking methods derived from 14 CFR part 119 requirements.

L. Flightcrew Qualifications. A pilot in command (PIC) who has not met the requirements of § 91.1039(c), § 121.652; part 125, § 125.379; or § 135.225(e), as appropriate, must use the high minimum pilot RVR landing minimum equivalents, as determined from the table in OpSpec/MSpec/LOA C054. The provisions of an exemption to these requirements may also apply.

M. Authorized CAT II Approaches.

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

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

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

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

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

c) Operators authorized SA CAT II, as described in subparagraph M2) below, may also be authorized to conduct approaches to standard CAT II facilities when the TDZ and/or centerline (CL) lights are inoperative or when the Approach Lighting System with Sequenced Flashing Lights (ALSF) is downgraded (such as no sequence flashing lights (SFL), or when operated as simplified short approach lighting system with runway alignment indicator lights (SSALR) or simplified short approach lighting system (SSALS)). They must comply with all requirements in subparagraph M2), using minimums appropriate to the RVR available and using autoland or manual (HUD) to touchdown.

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

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

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

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

O. Authorized CAT II or CAT III Airports and Runways. All foreign airports and runways approved for CAT II or III operations and restricted U.S. airports and runways approved for CAT II or III operations must be specifically identified and listed in OpSpec/MSpec/LOA C060 Table 3. The list of approved foreign CAT II and III airports and runways can be found at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420.

NOTE: Operators are authorized to conduct any CAT II or III operations at all domestic airports and runways using an approved part 97 CAT II/III instrument approach procedure (IAP), unless the runway is on AFS-400's "Restricted U.S. Facilities Approved for Category II/III Operations" list at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420, or unless a restrictive Notice to Air Missions (NOTAM) is issued for that approach.

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

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

2) Restricted/Nonstandard U.S. Facilities. The U.S. ILS facilities provided in AFS-400's Restricted U.S. Facilities list are approved only for the specific airplanes listed when conducting CAT III operations or CAT II operations using autoland or FP HUD-to-touchdown. The characteristics of the pre-threshold terrain, runway TDZ slope, or steep GS at these facilities may cause abnormal performance in flight control systems. Additional analysis and/or flight demonstrations are typically required for each airplane type before approval of CAT II/III minimums at each runway. Publication of a part 97 Standard Instrument Approach Procedure (SIAP) or additional operators and their airplanes may be approved by AFS-400, as provided in AC 120-118, Appendix 4, Irregular Terrain Assessment. Approved airplanes are equipped with either autoland or FP HUD flight guidance equipment. The restrictions at U.S. facilities for the operators are provided as selectables for listing in Table 4 of OpSpec/MSpec/LOA C060 (see Figure 3-257 below).

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

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

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

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

P. Engine-Inoperative Operations. The operator may be authorized for engine-inoperative CAT II or CAT III operations in accordance with the AFM, AC 120-28, AC 120-29, and AC 120-118. Airplane M/M/S, operational requirements, and limitations must be listed in Table 5 of C060 (see Figure 3-258, Sample C060 Table 5 – Engine Inoperative Operations).

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

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

3) Authorization to conduct engine-inoperative CAT II or CAT III operations is based on the AFM and approved operator procedures and training. AC 120-118 describes, in detail, the requirements and considerations necessary for authorization, which include airplane

performance, configuration and systems requirements, crew training (if applicable), and dispatcher and crew preflight and en route planning and decision making.

4) Operational authorizations are in accordance with AC 120-118. Three cases are considered for this authorization:

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

b) With landing after engine failure en route authorization, the operator may initiate an engine-inoperative CAT II or CAT III approach under the conditions specified in AC 120-118.

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

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

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

OPSPEC/MSPEC/LOA C061—FLIGHT CONTROL GUIDANCE SYSTEMS FOR AUTOMATIC LANDING OPERATIONS OTHER THAN CATEGORIES II AND III.

A. General. OpSpec/MSpec C061 authorizes an operator to use a flight control guidance system with automatic landing capabilities to touchdown. Title 14 CFR part 121, § 121.579(f); part 125, § 125.329(f); and part 135, § 135.93(f) specify that this type of operation must be authorized by an OpSpec. A 14 CFR part 91K program manager is issued MSpec C061, if applicable. Before issuing C061, the principal operations inspector (POI) must determine the following:

1) The Aircraft Flight Manual (AFM) permits use of the flight control guidance system (autoland system) to touchdown.

2) Training on the use of the flight control guidance system and autoland procedures to touchdown is provided to flightcrew members.

3) The operator continually maintains flight control guidance and autoland systems in accordance with an approved maintenance program for autoland operations.

NOTE: The current edition of Federal Aviation Administration (FAA) Order 8400.13, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, also provides credit for other-than-standard Category II (CAT II) minimums using an autoland system to touchdown.

B. Listing Flight Control Guidance Systems. The airplanes (make/model) and the flight control guidance systems (manufacturer/model) authorized for this type of operation must be listed in C061a.

C. Exceptions to Issuance of C061. When the autoland system is not used to touchdown on a Category I (CAT I) instrument landing system (ILS), C061 is not required to be issued.

D. Additional Information. The current edition of Advisory Circular (AC) 120-67, Criteria for Operational Approval of Auto Flight Guidance Systems, provides additional information.

OPSPEC/MSPEC/LOA C062—MANUALLY FLOWN FLIGHT CONTROL GUIDANCE SYSTEM CERTIFIED FOR LANDING OPERATIONS OTHER THAN CATEGORIES II AND III.

A. General. OpSpec/MSpec C062 is optional for 14 CFR parts 91K, 121, 125, and 135 operations to authorize operators to use manually flown flight control guidance systems to conduct approach and landing operations to fly a Category (CAT) I instrument landing system (ILS) using a Head-Up Display (HUD). C062 is issued to use a HUD just as C061 is issued to use an autoland system for other than CAT II or CAT III operations.

1) This authorization is independent of CAT II/III authorizations. Typically, this authorization is issued prior to CAT II/III authorizations and is kept after the issuance of CAT II/III authorizations.

2) The current edition of FAA Order 8400.13, Procedures for the Evaluation and Approval of Facilities for Special Authorization Category I Operations and All Category II and III Operations, also provides credit for lower-than-standard CAT I minimums using HUD to touchdown.

3) It is required to list series of aircraft in addition to make/model due to the distinct differences in series of models (especially in the newer aircraft). The aircraft listed must have a manual flight control guidance system installed and certified for manually flown landings (HUD).

B. Exceptions to Issuance of C062. When HUD guidance is not used to touchdown on a CAT I ILS, C062 is not required to be issued.

C. Requirements for Operators Conducting Operations in MD-11 Aircraft. National Transportation Safety Board (NTSB) safety recommendation A-99-40 recommends the FAA “issue a flight standards information bulletin that directs principal operations inspectors to ensure that MD-11 training programs provide simulator instruction in the proper procedure for autopilot disengagement and the subsequent manual control of the airplane.” As a result, the Flight Standards Service (FS) recommends that Principal Operations Inspectors (POI) ensure that each operator conducting operations in an MD-11:

1) Has included in its Company Flight Manual (CFM) information regarding the potential for pitch attitude upsets caused by improper operation of the autopilot and disseminate that information to each flightcrew member of the MD-11.

2) Has included simulator instruction in the proper operating procedure for autopilot disengagement and subsequent manual control of the airplane in its MD-11 initial, upgrade, recurrent, transition, and requalification training programs.

D. Helicopter Authorization. See OpSpec/MSpec H111, Manually Flown Flight Control Guidance System Certified for Landing Operations Other Than Categories II and III, for the helicopter equivalent of this authorization.

OPSPEC/MSPEC/LOA C063—AREA NAVIGATION (RNAV) AND REQUIRED NAVIGATION PERFORMANCE (RNP) TERMINAL OPERATIONS.

A. General. The authorization provided by OpSpec/MSpec/LOA C063 is applicable to certificate holders (CH)/operators/program managers conducting operations under 14 CFR parts 91K, 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. (For 14 CFR part 129, see Volume 12, Chapter 4, Section 4.)

1) OpSpec/MSpec/LOA C063 authorizes CHs/operators/program managers to conduct operations using 14 CFR part 97 U.S. instrument flight rules (IFR) terminal Area Navigation 1 (RNAV 1) and/or Required Navigation Performance 1 (RNP 1) departure procedures (DP) and RNAV 1 and/or RNP 1 Standard Terminal Arrival Routes (STAR) in the National Airspace System (NAS). This guidance addresses RNAV 1, RNP 1, and other RNAV flight operations. It also provides guidance authorization for CHs/operators/ program managers to conduct RNP 1 procedures that include Radius to Fix (RF) path terminators and Tailored Arrivals (TA). Part 91 operators do not need to obtain an LOA for RNAV 1 or RNP 1 operations.

2) The term “RNAV 1 DP” or “RNP 1 DP” includes Standard Instrument Departures (SID) and Obstacle Departure Procedures (ODP).

3) RNP 1 requires a Global Positioning System (GPS) and additional requirements for operating on procedures that contain RF legs, as outlined in the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace.

4) RF legs are an optional capability rather than a minimum requirement for RNP 1 operations. However, RF capability is required for Advanced RNP (A-RNP) CHs. For RNP 1 systems incorporating RF leg capability, the systems must comply with the requirements in AC 90-105, Appendices C, H, and I.

B. Determining Eligibility for RNP 1 and RNAV 1.

1) RNP Compliance. AC 90-105 provides the minimum criteria for RNP systems to operate on RNP routes and procedures. Manufacturers should evaluate their systems against these criteria and document the RNP capabilities as per guidance in AC 90-105.

2) CHs/operators/program managers and pilots should use the guidance in AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, to determine their eligibility for domestic U.S. RNAV 1 terminal procedures. For the purpose of this authorization, “compliance” means meeting operational and functional performance criteria.

NOTE: Per AC 90-100 and AC 90-105, data suppliers and avionics data suppliers must have an LOA in accordance with the current edition of AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases. Operators must ensure that data supplier(s) are compliant. Aircraft/equipment with approval under AC 90-100 for use of GPS are approved under AC 90-105 for RNP operations.

3) RNAV 1 procedures require distance measuring equipment (DME)/DME/Inertial Reference Unit (IRU) sensors and/or GPS inputs. Due to gaps in the DME infrastructure of the NAS, RNAV 1 procedures require IRU sensor inputs to augment DME/DME, which is often referred to as DME/DME/IRU.

4) RNP 1 operations are based on GPS positioning and, if adequate coverage is available, DME/DME/IRU.

5) The CH/operator/program manager is responsible for providing equipment eligibility documented by the Airplane Flight Manual (AFM) or other FAA-recognized means. If the operators are unable to determine that the aircraft is eligible, they must provide the following required documentation for RNAV 1 and/or RNP 1 terminal procedures to the responsible Flight Standards office:

- a) RNAV system make, model, and part number(s);
- b) Evidence of compliance with AC 90-100 or AC 90-105 criteria;
- c) Crew operating procedures;
- d) Evidence of control of operation procedures;
- e) Crew training program;

- f) Evidence of control of navigation database processes; and
- g) Any other pertinent information.

6) Based on the information supplied by the operator, the Principal Operations Inspector (POI) must coordinate with the Principal Avionics Inspector (PAI) to determine equipment eligibility. If unable to determine eligibility, contact the Flight Operations Group (AFS-410.)

a) As described in AC 90-100 and AC 90-105, the term “compliance” means meeting the operational and functional performance criteria. For the intended purpose of this policy, “compatible” means equipment and systems that perform their intended function and meet performance requirements for RNAV 1 and RNP 1 operations.

b) The PAI determines the proper nomenclature of the equipment manufacturer’s make, model, and software version, and verifies the RNAV equipment and system is installed in accordance with approved data and meets the criteria of the current version of AC 90-100 or AC 90-105. To ensure the proper configuration control of the approved RNAV operating system, it is required to list both the hardware and the software part numbers or version/revision numbers in Table 1 of OpSpec C063.

c) If the responsible Flight Standards office is unable to determine equipment eligibility for RNAV 1 or RNP 1 DPs and STARs, contact AFS-410 for guidance.

7) Based on the information supplied by the CH/operator/program manager, the POI must coordinate with the PAI to determine if the aircraft’s system meets the performance and functionality requirements for RNP 1 operations. The equipment must not permit the flightcrew to select a procedure or route that is not supported by the equipment, either manually or automatically (e.g., a procedure is not supported if it incorporates an RF leg and the equipment does not provide RF leg capability). The system must also restrict pilot access to procedures requiring RF leg capability if the system can select the procedure, but the aircraft is not otherwise equipped (e.g., the aircraft does not have the required roll steering autopilot or flight director (FD) installed).

8) Some RNAV equipment and systems may not be able to perform multiple STAR runway transitions, sometimes known as route Type 3, because of database limitations. Operators of such RNAV systems must procure a tailored database and charts to allow the use of multiple runway transitions in order to qualify for RNAV 1 and/or RNP 1 approval.

9) After the POI and PAI agree that the CH’s/operator’s/program manager’s navigation equipment, procedures, and flightcrew training are eligible for authorization(s) in Table 1, the OpSpec/MSpec/LOA C063 template may be issued, indicating the appropriate bundled authorizations as follows:

- A-RNP, RNP 1, TA, RNAV 1;
- RNP 1, RF, TA, RNAV 1;
- RNP 1, RF, RNAV 1;

- RNP 1, TA, RNAV 1;
- RNP 1, RNAV 1; or
- RNAV 1.

10) Every effort should be made to bundle qualifications within the hierarchy of an OpSpec/MSpec/LOA where applicable and also combine other OpSpecs/MSpecs/LOAs as desired by qualified operators. (Refer to AC 90-105.)

Figure 3-67D. Sample C063 Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)

Airplane M/M/S	Compliant RNAV System(s) and Software			Navigation Specification(s)	Additional Capabilities	Limitation and Provisions
	Manufacturer	Model/HW Part Number	Software Part/ Version/ Revision Number			
B-747-451	Honeywell Rockwell-Collins Honeywell Rockwell-Collins Rockwell-Collins Honeywell	FMC-4052508 FCGS-FCS-700 IRU-HG1050 DME-DME-700 MMR(GPS)-GLU-925 MMR(GPS)-RMA-55B		A-RNP/RNP 1/ TA/RNAV 1	FRT/TOAC	GPS Required
B-757-212	Honeywell Rockwell-Collins Honeywell Rockwell-Collins Honeywell Rockwell-Collins	FMC-4052506 FCGS-FCS-700 IRU-HG1050 DME-DME-700/ DME- 900 DME-DMA-37B MMR(GPS)-GLU-920		RNP 1/RF/TA/ RNAV 1	FRT	GPS Required
A-320-212	Thales Thales Honeywell Rockwell-Collins Thales	FMGC-C13043 C13403 ADIRU-HG1150/ HG2030 DME-DME-700/ DME- 900 MMR(GPS)-TLS755-01		RNP 1/RF/ RNAV 1	TOAC	
A-330-223	Thales Thales Honeywell Rockwell-Collins Thales	FMGEC-C12858 C12858 ADIRU-HG2030 DME-DME-900 MMR(GPS)-TLS755-01		RNP 1/TA/ RNAV 1		DME/DME Only
B-717-200	Honeywell Honeywell Honeywell Honeywell Honeywell	FMC-4081570 B717ACF ADIRU-HG2080 DME-DMA-37B MMR(GPS)-RMA-55B		RNP 1/ RNAV 1		
B-737-832	GE (Smiths) Honeywell Rockwell-Collins Honeywell Rockwell-Collins Rockwell-Collins	FMC-2907A4/2907C1 FCGS-SP-300 FCGS-EDFCS-730 ADIRU-HG2050 DME-DME-900 MMR(GPS)-GLU-920/ GLU-925		RNAV 1		

11) A-RNP Authorization. In paragraph C063, Table 1 provides an option for six bundled options starting with A-RNP, RNP 1 with TA. Lesser bundles are also available with the following options: RNP 1 with RF and TA and RNAV 1; RNP 1 with RF and RNAV 1; RNP 1 with TA and RNAV 1; RNP 1 and RNAV 1; or RNAV 1 only. As a minimum for A-RNP, the CH must be qualified for the following advanced capabilities: scalability, RF, and parallel offset. Operators applying for A-RNP must be functionally and operationally capable of performing the required A-RNP functions and meet the continuity requirements for the operation.

12) Additional Capabilities. A-RNP functions fixed radius transition (FRT) and/or Time of Arrival Control (TOAC) may be selected in Table 1 under additional capabilities for those who qualify for A-RNP.

C. RNAV 1 and/or RNP 1 DPs and STARs. AC 90-100 provides detailed guidance for CHs/operators/program managers regarding operations on RNAV 1 DPs and STARs. AC 90-105 provides guidance for system and operational approval for conducting RNP 1 DPs and STARs.

1) For current ACs, policy, guidance, and compliance tables, refer to https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410/pbn. For further questions, contact AFS-410 at 202-267-8790. Based on the information supplied by the CH/operator/program manager, the POI must coordinate with the PAI to determine equipment eligibility. For TAs, a Future Air Navigation System 1/A (FANS 1/A) is required, as indicated in OpSpec/MSpec/LOA A056.

2) Additional information may also be found in the Web-based Operations Safety System (WebOPSS) guidance associated with OpSpec/MSpec/LOA C063 by clicking on “Guidance.”

D. Outlining Procedures Using This Approval. Procedures used under this approval should be outlined in the appropriate operations manual or within the OpSpec/MSpec/LOA C063 template for CHs/operators/program managers conducting operations under parts 91K, 125 (including A125 LODA holders), and 135 who do not have an operations manual. For part 91 operators, LOAs are optional and may be obtained through the application process.

E. Designation of RNAV 1 RNP 1. U.S. RNAV DPs and STARs throughout the NAS are designated as RNAV 1 and published in accordance with part 97.

F. Definitions Related to This Authorization. Some important definitions as they relate to this authorization are as follows:

1) Instrument Departure Procedure (DP). Instrument DPs are published IFR procedures that provide obstruction clearance from the terminal area to the en route structure. There are two types of DPs: SIDs and ODPs.

a) A SID is a published IFR air traffic control (ATC) DP that provides obstacle clearance and a transition from the terminal area to the en route structure. SIDs are primarily designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.

b) An ODP is a published IFR DP that provides obstruction clearance via the least onerous route from the terminal area to the appropriate en route structure. ODPs are recommended for obstruction clearance unless an alternate DP (such as a SID or radar vector) has been specifically assigned by ATC.

c) The RNAV 1 or RNP 1 DP must be retrievable from the flight management system (FMS) database and included in the filed flight plan.

G. CHs and Program Managers Authorized European Precision Area Navigation (P-RNAV) Operations. The criteria in AC 90-100, required for U.S. RNAV procedures, are generally consistent (but there are exceptions) with the criteria for P-RNAV operations in Europe.

1) P-RNAV terminal and en route operations require a track-keeping accuracy of ± 1 nautical mile (NM) for 95 percent of the flight time.

2) If an operator has met the requirements for and is authorized P-RNAV (OpSpec/MSpec/LOA B034), that operator may also be eligible for RNAV 1 after consideration of the issues listed below regarding equipment. POIs should still evaluate their operator's procedures and training to confirm compliance with AC 90-100.

a) If approval for the P-RNAV included the use of very high frequency omni-directional range station (VOR)/DME, then RNAV system performance must be based on the GNSS, DME/DME, or DME/DME/IRU for RNAV 1. However, VOR/DME inputs do not have to be inhibited or deselected.

b) If approval for the P-RNAV included the use of DME/DME, the operator can ask the manufacturer or check the FAA website for a list of compliant systems. However, DME/DME-only systems are not authorized to conduct RNAV 1 operations.

c) Operators must be able to follow RNAV guidance no later than 500 feet above field elevation (AFE).

3) Appropriate P-RNAV references.

a) The current edition of AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) in European Airspace Designated for Basic Area Navigation (B-RNAV)/RNAV 5 and Precision Area Navigation (P-RNAV);

b) Joint Aviation Authority (JAA) temporary guidance leaflet (TGL) Number 10, Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace; and

c) Volume 3, Chapter 18, Section 4, OpSpec/MSpec/LOA B034.

H. TAs. Currently, the TA model is limited and TAs are preplanned fixed routes received via data link from ATC's Ocean21 system to FANS 1/A-equipped aircraft. Except for

the instrument approach portion of the operation, these routes are neither stored in the aircraft navigation database nor published.

1) TAs consist of three elements.

- Delivery of the TA clearance through the ATC Ocean21 system via data link to FANS 1/A-equipped aircraft;
- An RNAV lateral, vertical, and speed profile; and
- Connection to a published instrument approach stored in the aircraft navigation database.

2) TA clearances. Because TAs are complex clearances, only aircraft with an FMS autoload/uplink function can request a TA. Pilots may not manually enter a TA procedure into the FMS. ATC issues TA clearances. Pilots fly the TA procedure according to the operator's standard operating procedures (SOP).

3) Approval. The POI should contact the Air Transportation Division (AFS-200), the General Aviation and Commercial Division (AFS-800), and the Flight Operations Group (AFS-410) for concurrence prior to issuing the appropriate OpSpec, MSPEC, or LOA. If the POI, AFS-200, and AFS-410 agree that the operator is authorized to conduct TA operations, authorization should be given by adding TA into the "Navigation Specification" column of Table 1.

4) CHs/operators/program managers must have all the following OpSpecs/MSpecs/LOAs for TA authorization:

- a) OpSpec A056. OpSpec A056 will include FANS 1/A equipment in Table 1.
- b) OpSpec B050.
- c) OpSpec C063. In the "Limitations and Provisions" column of Table 1 add the following phrase: "Operator is authorized to conduct TAs with FANS 1/A-equipped aircraft listed in OpSpec A056." If the POI wishes to restrict the authorization to only specific airports, this may also be added to the "Limitations and Provisions" column of Table 1.

I. References (current editions):

- Title 14 CFR Part 91, §§ 91.123, 91.205, and 91.503.
- Title 14 CFR Part 95.
- Title 14 CFR Part 121, § 121.349.
- Title 14 CFR Part 125, § 125.203.
- Title 14 CFR Part 135, § 135.165.
- Order 1050.1, Environmental Impacts: Policies and Procedures.
- Order JO 7100.9, Standard Terminal Arrival Program and Procedures.
- Order JO 7110.65, Air Traffic Control.
- Order JO 7400.2, Procedures for Handling Airspace Matters.

- Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).
- Order 8260.19, Flight Procedures and Airspace.
- Order 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design.
- Order 8260.61, Charted Visual Flight Procedures.
- AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases.
- AC 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System.
- AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) In European Airspace Designated for Basic Area Navigation (B-NAV)/RNAV 5 and Precision Area Navigation (P-RNAV).
- AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.
- AC 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace.
- Technical Standard Order (TSO)-C129a, Airborne Supplemental Navigation Equipment Using the Global Positioning System (GPS).
- TSO-C145(), Airborne Navigation Sensors Using the Global Positioning System (GPS) Augmented by the Satellite Based Augmentation System (SBAS).
- TSO-C146(), Stand-Alone Airborne Navigation Equipment Using the Global Positioning System (GPS) Augmented by the Satellite Based Augmentation System (SBAS).
- TSO-C196(), Airborne Supplemental Navigation Sensors for Global Positioning System Equipment using Aircraft-Based Augmentation.
- International Civil Aviation Organization (ICAO) Global Operational Data Link Document (GOLD).

OPSPEC C064—TERMINAL AREA IFR OPERATIONS IN CLASS G AIRSPACE AND AT AIRPORTS WITHOUT AN OPERATING CONTROL TOWER—NON SCHEDULED PASSENGER AND ALL CARGO OPERATIONS. C064 authorizes an operator to conduct nonscheduled passenger and all cargo (scheduled and nonscheduled) terminal area instrument flight rules (IFR) operations in Class G airspace or into airports without an operating control tower, with the following limitations and provisions:

A. Operation Information. Before authorizing C064, the principal operations inspectors (POI) must ensure that the operator has sufficient content in its manual(s) and training program to cover common traffic advisory frequency (CTAF) and pilot controlled lighting (PCL) information and procedures. The POI must also determine that the operator has a method or procedure for obtaining and disseminating necessary operation information. This operation information must include the following:

- 1) The airport is served by an authorized instrument approach procedure (IAP) (and departure procedure when applicable);

- 2) Applicable charts for crewmember use;
- 3) Operational weather data from an approved source for control of flight movements and crewmember use;
- 4) Status of airport services and facilities at the time of the operation;
- 5) Suitable means for pilots to obtain traffic advisories (TA); and
- 6) Sources of TA and airport advisories.

B. Radio Sources of Air TA Information. Certificate holders may be authorized to use any two-way radio source of air TA information listed in the Aeronautical Information Manual (AIM) (for operations in U.S. airspace) or equivalent Aeronautical Information Publications (AIP) (for foreign operations).

1) These sources include CTAFs, Aeronautical Advisory Stations (UNICOM), Aeronautical Multicom Stations (MULTICOM), and Flight Service Stations (FSS).

2) In those cases where two sources are listed at the same airport, inspectors must ensure that the operator's manuals have procedures that require pilots to continuously monitor and use the TA frequency when operating within 10 nautical miles (NM) of the airport. The procedures should require communication concerning airport services and facilities to be completed while more than 10 NM from the airport.

3) At some airports, no public use frequencies may be available. In those cases, a certificate holder must arrange for radio communication of essential information including surveillance of local or transient aircraft operations by ground personnel. Ground personnel who operate a company radio for airport status and TA must be able to view airspace around the airport.

C. Issuance of C064 for C081 Authorization. OpSpecs C064 and/or C080 may need to be issued to the certificate holder in order for the OpSpec C081 to be issued. C081 authorizes the use of special (non-14 CFR part 97) IAPs or departure procedures (DPs).

D. Other Authorizations. C064 is applicable to 14 CFR part 121, 125, 121/135, and 135 certificate holders. For helicopter authorization, see OpSpec H121. Title 14 CFR part 91 subpart K (part 91K) program managers should use MSpec A014 for Class G operations.

OPSPEC C065—POWERBACK OPERATIONS WITH AIRPLANES.

A. General. C065 authorizes the use of powerplant reversing systems for rearward taxi operations. Before issuing C065, the principal operations inspector (POI) must determine whether the operator meets requirements discussed in AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach, current edition. Airplane types' make, model, and series (M/M/S) authorized for powerback operations must be listed in C065. Airports where powerback operations are authorized must also be listed. If the POI and/or operator determine that restrictions to powerback operations are required at certain gates or ramp

areas, the restrictions must be described (adjacent to the airport name) in the “Restrictions and Limitations” column. OpSpecs worksheets provide a template for listing authorized airplanes, airports, and restrictions.

B. Policies and Procedures for Ground Personnel During Ground Operations.

Title 14 CFR part 121, §§ 121.133 and 121.135, part 134, § 134.23, and part 135, § 135.21, require certificate holders to prepare manuals setting forth procedures and policies that must be used by ground and maintenance personnel in conducting their ground operations. Sufficient procedures must be established to maintain an adequate level of passenger and company ground personnel safety during ramp operations. Procedures should emphasize safety during boarding and deplaning of passengers or cargo, specifically during times when an engine(s) may be running or a propeller(s) is turning during ground operations. Procedures should include, as a minimum, a means for defining no access areas around the propeller(s), as well as the landing gear and tugs, during push and ground marshaling operations. Policies should provide that an adequate number of ground personnel are assigned to ensure safety of company personnel and passengers.

C. Pushback and Ground Marshaling. Procedures for pushback and ground marshaling activities should be clearly defined and should include safety precautions and signals, and should ensure adequate visibility of assigned personnel during the time of aircraft movement.

D. Increased Awareness. FAA air carrier surveillance programs should emphasize increased awareness by inspectors and the strict need to follow safety procedures around turning propellers, in marshaling and pushback procedures, and/or other ground activities.

E. Other References. Additional references can be found in National Transportation Safety Board (NTSB) Recommendations 91-297, 91-298, and 93-146, and Air Carrier Operating Bulletin (ACOB) 8-94-2, Safety in Ground Operations.

OPSPEC C067—SPECIAL AIRPLANE AUTHORIZATIONS, PROVISIONS, AND LIMITATIONS FOR CERTAIN AIRPORTS.

A. General. OpSpec C067 authorizes certificate holders (CH) to operate airplanes into certain airports. The authorizations include the following:

1) Title 14 CFR part 121 air carriers to conduct passenger-carrying operations into uncertificated airports (see subparagraph C);

2) Part 121 air carriers to conduct operations at airports that require curfew limitations for flights into or out of specific airports (see subparagraph D);

3) Title 14 CFR part 121 or 135 air carriers to conduct operations into airports that have operational considerations such as special aircraft performance charts and equipment, special lighting (flare pots, etc.), or unpaved runways (see subparagraph D);

4) Part 121 or 135 air carriers to conduct operations using the Reginald Bennett International (RBI) Runway Reflectorization System in Alaska (see subparagraph D); and

5) Part 135 transport category airplane deviations from part 135, § 135.367(a)(3) or § 135.379(d). (See subparagraph D and Volume 4, Chapter 3, Section 5.)

B. Authorizations Where Other OpSpecs Are Applicable.

1) OpSpec C050 for “special PIC qualification airports” is applicable to the authorization described in part 121, § 121.445. Do not list special pilot in command (PIC) qualification airports in OpSpec C067 unless one of the items in subparagraph A also applies.

2) OpSpec C081 should be used for listing the airports/runways where the Flight Technologies and Procedures Division (AFS-400) has approved specific “special” instrument procedures for a CH.

3) OpSpec C058 is used for authorizing specific foreign Terminal Instrument Procedures (TERPS).

4) OpSpec C064 and C080 are used for authorizing a CH to conduct airplane operations in airport terminal areas in Class G and E airspace.

5) OpSpec C070 is used for authorizing airports where CHs conduct scheduled operations.

C. Uncertificated Airports.

1) In accordance with § 121.590(c) and (e), a CH may be authorized to conduct passenger-carrying airplane operations into an airport (nonmilitary) operated by the U.S. Government that is not certificated under 14 CFR part 139 if those airports meet:

a) The equivalent safety standards for airports certificated under part 139, and

b) The equivalent airport classification requirements under part 139 to serve the type airplanes to be operated and the type of operations to be conducted.

2) Authorization to use such airports may be granted by entering the location/identifier of each airport, and the make and model (if applicable) of the airplanes to be operated in Table 3-24, Sample of Airports and Special Provisions:

a) Operators should obtain permission from the airport manager of nonmilitary airports to operate at these airports before starting operations.

b) This permission is not needed for operations at joint-use civil and military airports.

3) The FAA may authorize a CH to conduct passenger-carrying airplane operations into a domestic military airport that is not certificated under part 139 (by selecting this text in the OpSpec) if the CH ensures the following in advance of starting operations into that airport:

a) CHs should obtain permission from the base commander of military airports that are not certificated under part 139 in advance of commencement of operations.

b) In accordance with the requirements of § 121.590, CHs must ensure that the airport:

1. Meets the equivalent safety standards for airports certificated under part 139, and

2. Meets the equivalent airport classification requirements under part 139 to serve the type airplanes to be operated and the type of operations to be conducted.

D. Other Special Authorizations.

1) Other special authorizations include those that may require special operational considerations and special flightcrew member training. (See guidance in Volume 4, Chapter 3, Section 5, paragraph 4-601.) These authorizations may include but are not limited to:

a) Operations into airports with special runway markings, such as flare pots or trees;

b) High-altitude airports with special airplane performance requirements;

c) Airports in or near precipitous terrain (§ 135.363(h)); and

d) Airports with unpaved runways or runways constructed on frozen lakes and rivers.

2) Special authorization for conducting operations at airports in Alaska. For authorization to conduct airplane operations using the RBI Runway ReflectORIZATION System in Alaska:

a) The air carrier must provide a station agent at the airport trained to give wind information to the flightcrew, and

b) The air carrier must train its flightcrews on this specific system in accordance with an approved training program. The training program must be approved in accordance with the following criteria:

1. Each pilot must receive initial and follow-on recurrent training in accordance with the company-approved training program.

2. Ground and flight personnel must complete initial training before participation with this authorization.

3. Recurrent training must be completed every 12 calendar-months following completion of initial training.

4. Whenever a person who is required to take this recurrent training completes the training in the calendar-month before or the calendar-month after the month in which this recurrent training is required, that person is considered to have completed it in the calendar-month in which it was required.

NOTE: The sample Table 1 below (Table 3-24) shows how to provide authorization for conducting operations after curfew hours at specific airports or use of the RBI Runway ReflectORIZATION system at specific airports in Table 1 of OpSpec C067.

3) Unpaved Runways for Turbojet Operations. To use an airport with unpaved runways, an operator is required to have special operational procedures and flightcrew member training. For approval of operations at an airport with unpaved runways, the Principal Operations Inspector (POI) must identify the airport and reference the appropriate section of the operator's manuals in Table 1 of OpSpec C067. See Volume 4, Chapter 3, Section 5.

4) You may list in OpSpec C067 flag or supplemental destination airports that do not have an available alternate airport (in accordance with § 121.621(a)(2) or § 121.623(b)), for use by airplanes that are dispatched in accordance with the required fuel reserves set forth in § 121.641(b) or § 121.645(c).

5) Although the FAA does not encourage operators to list aircraft limitations at certain airports during curfew hours in their OpSpecs, if an airport authority requires operators to list these limitations in their OpSpecs, then operators may list them in Table 1 of OpSpec C067. Table 3-24 below shows an example of limitations for air carrier operations into specific airports during curfew hours.

Table 3-24. Sample of Airports and Special Provisions

Airport Location/Identifier	Aircraft M/M (enter N/A if not applicable)	Special Provisions and Limitations and Special Flightcrew Member Training
PKEK, Ekwok, Alaska	N/A	A station agent is required to give wind information to the flightcrews and the flightcrew must have completed the required approved training on the RBI Runway ReflectORIZATION System.
DCA, Ronald Reagan Washington National Airport	Boeing 737-800	Limitations during the curfew hours. Boeing 737-800 Max Takeoff—159,000 pounds. Max Landing—137,600 pounds.
Tahiti Island, Society IS; PPT/NTAA	N/A	Approved as destination airport without an available alternate.

6) Deviation from the requirement to obtain obstacle clearance data for takeoff. This OpSpec provides for the authorization of certain transport category airplanes a deviation from § 135.367(a)(3) or § 135.379(d). Guidance for this deviation authorization is contained in Volume 4, Chapter 3, Section 5, paragraph 4-599. To authorize this deviation, it must be listed in OpSpec A005 and the following statement must be selected in OpSpec C067:

“The certificate holder is authorized to conduct takeoff operations using transport category airplanes weighing no more than 19,000 pounds and having a seating configuration of no more than 19 passenger seats without showing compliance with CFR Sections 135.367(a)(3) and 135.379(d). This authorization is limited to only the following operations conducted:

- At airports of 4,000 feet MSL or less field elevation;
- On runways on which the available length of runway is equal to or greater than 150 percent of the runway required by CFR Sections 135.367(a)(1) and (2) or CFR Section 135.379(c), as applicable; and
- In weather conditions equal to or greater than straight-in Category I landing minimums for the runway being used.”

OPSPEC C068—NOISE ABATEMENT DEPARTURE PROFILES.

A. General. C068 authorizes an operator to conduct Noise Abatement Departure Profiles (NADP) using aircraft with a maximum certificated gross takeoff weight (GTOW) of more than 75,000 pounds. Operators may use either or both of two standard NADPs as described in the current edition of Advisory Circular (AC) 91-53, Noise Abatement Departure Profiles.

B. Compliance of Vertical Departure Profiles. Before authorizing this paragraph, the Principal Operations Inspector (POI) must ensure that all airplane vertical departure profiles described in the certificate holder (CH) operations and/or training manuals comply with the minimums criteria established in AC 91-53 for NADPs (close-in and distant) before approving paragraph C068 for the CH’s OpSpecs. The CH must not use any other departure profile (except as stated in 14 CFR part 91) that is not defined within the AC.

NOTE: Use of part 91 procedures does not require OpSpecs authorization. If the operator does not meet the criteria established in AC 91-53, then OpSpec C068 will not be issued.

C. Proposed Exceptions to This OpSpec. Proposed exceptions to the criteria as stated in this OpSpec, which would be less limiting (less than 800 feet above field elevation (AFE)), must be addressed by the CH to the CH’s POI for concurrence by the Flight Technologies and Procedures Division (AFS-400) of the Flight Standards Service (FS).

D. Criteria for Close-In and Distant NADPs. AC 91-53, effective July 22, 1993, established minimum acceptable criteria for speed, thrust settings, airplane configurations, and the criteria for both the close-in and distant NADPs. These NADPs can be combined with preferential runway selection and flightpath techniques to minimize noise impact. For helicopter information, refer to the current edition of AC 91-66, Noise Abatement for Helicopters.

NOTE: The distant departure profile requires an initiation of flaps/slats retraction prior to thrust cutback initiation with the thrust cutback initiation at an altitude of no less than 800 feet AFE. Configuration changes necessary to meet regulatory performance or operations requirements will not be affected by this procedure. For those airplanes that have a performance requirement to reduce takeoff flaps to an intermediate takeoff flap setting at 400 feet AFE or above, the next flap/slats retraction should be initiated at an altitude of no less than 800 feet AFE.

OPSPEC C070—AIRPORTS AUTHORIZED FOR SCHEDULED OPERATIONS.

A. Regulatory Foundation. In accordance with 14 CFR part 119, § 119.49, certificate holders conducting 14 CFR parts 121 and/or 135 operations must have OpSpecs that prescribe the authorizations and limitations for each kind of operation. OpSpec C070 is the authorization the FAA issues to a certificate holder for the purpose of listing each airport the certificate holder is authorized to use in scheduled operations.

B. Airports for Scheduled Operations. Certificate holders conducting parts 121 and/or 135 scheduled operations (domestic, flag, and/or commuter) must list each airport to be used in those operations in OpSpec C070. In accordance with § 119.49(a)(4)(ii), certificate holders may not conduct domestic, flag, and/or commuter operations using airports not listed.

1) Part 121. Each certificate holder conducting part 121 domestic and/or flag operations must list each regular, provisional, refueling, and alternate airport (except an Extended Operations (ETOPS) Alternate) for use in scheduled operations in OpSpec C070.

2) Part 135. Each certificate holder conducting part 135 commuter operations must list each regular and alternate airport (except an ETOPS Alternate) for use in scheduled operations in OpSpec C070.

C. Regulatory References. The subparagraphs that follow contain regulatory references that generally apply to airports used in air carrier operations. The list of references is intended as an aid for principal operations inspectors (POI) and aviation safety inspectors (ASI). It is not intended to be all inclusive.

1) Regulations Applicable to Part 121 Operations:

- § 121.93.
- §§ 121.97 through 121.107.
- § 121.551.
- § 121.590.
- §§ 121.617 through 121.621.
- § 121.625.
- § 121.627.
- § 121.631.
- § 121.635.
- § 121.637.

2) Regulations Applicable to Part 135 Operations:

- §§ 135.219 through 135.223.
- § 135.229.

3) Regulations Regarding Airport and Aircraft Operator Security—Parts 121 and 135. Regulations applicable to airport and aircraft operator security are located in Title 49 of the Code of Federal Regulations (49 CFR) Subtitle B, Other Regulations Relating to Transportation; Chapter XII, Transportation Security Administration, Department of Homeland Security; Part 1542, Airport Security, and Part 1544, Aircraft Operator Security: Air Carriers and Commercial Operators.

D. Safety Assurance System (SAS) Data Collection Tools (DCT) Related to C070:

- ED 3.2.2 135C OP Use of Approved Areas, Routes, and Airports.
- ED 3.2.2 135D OP Use of Approved Areas, Routes, and Airports.
- EP 3.2.2 135C OP Use of Approved Areas, Routes, and Airports.
- EP 3.2.2 135D OP Use of Approved Areas, Routes, and Airports.
- ED 3.3.2 121A OP Dispatch/Flight Release.
- EP 3.3.2 121A OP Dispatch/Flight Release.
- ED 6.1.1 121A OP Training of Station Personnel.
- ED 6.1.1 135C OP Training of Station Personnel.
- ED 6.1.1 135D OP Training of Station Personnel.
- EP 6.1.1 121A OP Training of Station Personnel.
- EP 6.1.1 135C OP Training of Station Personnel.
- EP 6.1.1 135D OP Training of Station Personnel.
- ED 6.2.4 121A OP Line Station Operations/Ground Personnel Duties.
- ED 6.2.4 135C OP Line Station Operations/Ground Personnel Duties.
- ED 6.2.4 135D OP Line Station Operations/Ground Personnel Duties.
- EP 6.2.4 121A OP Line Station Operations/Ground Personnel Duties.
- EP 6.2.4 135C OP Line Station Operations/Ground Personnel Duties.
- EP 6.2.4 135D OP Line Station Operations/Ground Personnel Duties.

E. Definitions. OpSpec C070 contains the definitions for regular, provisional, refueling, and alternate airports. With the exception of refueling airports, the C070 definitions come from 14 CFR parts 1 and 110. The definition of refueling airports no longer exists in the regulations; it exists only in C070. An alternate airport (excluding an ETOPS Alternate Airport, which is defined in § 121.7) is defined in part 1, § 1.1. Regular and provisional airports are defined in part 110, § 110.2. The definitions are as follows:

1) Regular Airport (R). An airport used by a certificate holder in scheduled operations and listed in its operations specifications.

2) Refueling Airport (F) (Part 121 Only). An airport approved as an airport to which flights may be dispatched for refueling.

3) Provisional Airport (P) (Part 121 Only). An airport approved by the Administrator for use by a certificate holder for providing service to a community when the regular airport used by the certificate holder is not available.


4) Alternate (A) (Excluding an ETOPS Alternate). An airport at which an aircraft may land if a landing at the intended airport becomes inadvisable.

F. The National Environmental Policy Act of 1969 (NEPA) Considerations and Environmental Assessments. NEPA generally applies to U.S. airports. Prior to authorizing a certificate holder to add a U.S. airport to OpSpec C070, POIs must consider whether or not an Environmental Assessment (EA) is required for the added airport. Volume 11, Chapter 6, Environmental Considerations and Responsibilities, contains information related to NEPA and EAs. The current edition of FAA Order 1050.1, Environmental Impacts: Policies and Procedures, contains information regarding Categorical Exclusions (CATEX) for certification actions. POIs must familiarize themselves with the policy contained in both of these orders to determine if an EA is required prior to authorizing an airport in C070.

NOTE: EAs are not typically required when authorizing an airport in C070 strictly for use as an alternate airport. (Refer to the current edition of Order 1050.1, Subparagraph 5-6-2, Categorical Exclusions for Certification Actions.)

G. Station Facilities Operations Inspections for Parts 121 and 135 Certificate Holders. Volume 6, Chapter 2, Section 24 contains policy for operations inspectors on performing station facilities inspections on certificate holders conducting parts 121 and/or 135 operations. POIs and ASIs must review and follow the policy prior to authorizing any airport in C070. Once an airport is authorized for scheduled operations, POIs and ASIs should periodically reevaluate a certificate holder's station facilities to ensure they are being maintained. Certificate holders must continue to meet parts 121 and/or 135 regulatory requirements, such as those for routes and airports (e.g., §§ 121.93, 121.97, and 135.229) and servicing and maintenance facilities (§ 121.105).

H. Designation of Airports in C070. POIs and/or certificate holders will designate airports in C070 as being Regular (R), Provisional (P), Refueling (F), or Alternate (A). The designation process includes listing the aircraft authorized for use at each airport. Typically, the certificate holder will designate the airports and the POI will authorize those airports by signing and issuing C070 in the Web-based Operations Safety System (WebOPSS).

1) Select Airports. OpSpec C070 airports are available in the "Maintain Operator Data – Airports" area of WebOPSS. To add an airport to C070, edit a new draft C070 in the WebOPSS "Maintain Authorizing Documents Workspace" and click on the "Add new data" symbol (). Select an airport from the "Available Airports" by location, airport name, or airport identifier and add it to the certificate holder's "Assigned Airports" using the down arrow. In the rare occasion that an airport is not available in WebOPSS, contact the WebOPSS help desk by email at AFS-WebOPSS@faa.gov and request an airport be added.

2) Airport Designation. To designate an airport as Regular (R), Provisional (P), Refueling (F), or Alternate (A), highlight the desired airport in the “Assigned Airports” in “Maintain Operator Data – Airports” and then click on the “Other Airport Data” button. See Figure 3-231, Sample Other Airport Data Selection in WebOPSS. While in the “Other Airport Data” section for the selected airport, check the appropriate boxes for Alternate, Refueling, Regular, and/or Provisional, next to the desired type of airport for each aircraft make/model (see Figure 3-232, Sample Select Other Airport Data in WebOPSS).

a) Designate a Provisional Airport. To designate an airport as being Provisional (P) for a particular regular airport (not specific to aircraft make/model), highlight the regular airport for which the provisional airport is being designated in the C070 workspace in WebOPSS. Then click on the “Other Airport Data” button, and then on the “Provisional Airports” button. In the “ICAO – Location” box, search for the desired provisional airport by the International Civil Aviation Organization (ICAO) code and assign it to the certificate holder using the right arrow (see Figures 3-231 and 3-232). Except in unique situations, do not assign an airport as a provisional airport if it is located more than 100 statute miles outside of the metropolitan area served by the regular airport. (See Figure 3-233, Sample Assignment of Provisional Airport in WebOPSS, for an example of provisional airport designation.)

b) Alternate Airports.

1. Part 121. For part 121 domestic and/or flag operations, a certificate holder may use any regular, provisional, or refueling airport as an alternate airport, provided the airport is authorized for the type of aircraft being used. There is no need to dually designate an airport as an alternate for a particular aircraft type if that airport is already authorized as a regular, provisional, or refueling airport for that aircraft type.

2. Part 135. For part 135 commuter operations, a certificate holder may use any regular airport as an alternate airport, provided the airport is authorized for the type of aircraft being used. There is no need to dually designate an airport as an alternate for a particular aircraft type if that airport is already authorized as a regular airport.

3. Listing of Alternate Airports. Effective January 27, 2019, FAA policy requires certificate holders to list all airports for use in scheduled operations in C070, including alternate airports (this does not include ETOPS Alternates). For parts 121 and/or 135 scheduled operations (domestic, flag, or commuter), certificate holders must designate airports intended for use strictly as alternate airports as “A” in C070.

c) C070 Completion. Figure 3-234, Sample Completed List of Airports Authorized for Scheduled Operations, contains an example of a completed C070. The listed airports can be exported into an Excel spreadsheet from the “Maintain Operator Data – Airports” area of WebOPSS for review and convenience (see Figure 3-231 for the “Export Assigned Airports Data” button depicted below).

Figure 3-231. Sample Other Airport Data Selection in WebOPSS

The screenshot displays the WebOPSS interface. On the left is a navigation menu with categories: Inbox, Headquarters, CHDO (FS00), Operators, Maintain Operator Data (with sub-items: Addresses, Airworthiness Directive Notification, Aircraft, Airports, Authorized Areas, Deviations, Exemptions, Insurance, Personnel, DBAs, Maintain Authorizing Documents, Maintain Inspectors, Template Proposals, Users), Tools, and Logout. The 'Airports' sub-item is highlighted. The main content area shows a table titled 'Assigned Airports' with columns: Status, Location, Name, ICAO Code, IATA Code, Country, and Aircraft Assigned. The table contains 11 rows of airport data. Below the table are two buttons: 'Other Airport Data' and 'Export Assigned Airports Data'. Two black arrows point from the bottom of the page to these buttons. At the top right of the interface, there are two green circular icons with arrows pointing up and down.

Status	Location	Name	ICAO Code	IATA Code	Country	Aircraft Assigned
✓		Boulder City Airport	KBVU	BVU	United States	No
✓	ABERDEEN	ABERDEEN	EGPD	ABZ	United Kingdom	Yes
✓	ABIDJAN/FELIX HOUPHOUET B	ABIDJAN/FELIX HOUPHOUET	DIAP	ABJ	Côte D'ivoire	Yes
✓	ABILENE/REGIONAL, TX.	ABILENE/REGIONAL, TX.	KABI	ABI	United States	Yes
✓	ABU DHABI INTERNATIONAL	ABU DHABI INTERNATIONAL	OMAA	AUH	United Arab Emira	Yes
✓	ABUJA	ABUJA	DNAA	ABV	Nigeria	Yes
✓	ACAPULCO	ACAPULCO	MMAA	ACA	Mexico	Yes
✓	ACCRA/KOTOKA INTERNATION	ACCRA/KOTOKA INTERNATIO	DGAA	ACC	Ghana	Yes
✓	ADELAIDE (FIC/ACC)	ADELAIDE (FIC/ACC)	YPAD	ADL	Australia	Yes
✓	AGANA/GUAM INTERNATIONAL	AGANA/GUAM INTERNATIONA	PGUM	GUM	United States	Yes

Figure 3-232. Sample Select Other Airport Data in WebOPSS

Other Airport Data

Office Code: TEST **Designator:** KLFA **Name:** 121 **CFR:** 121

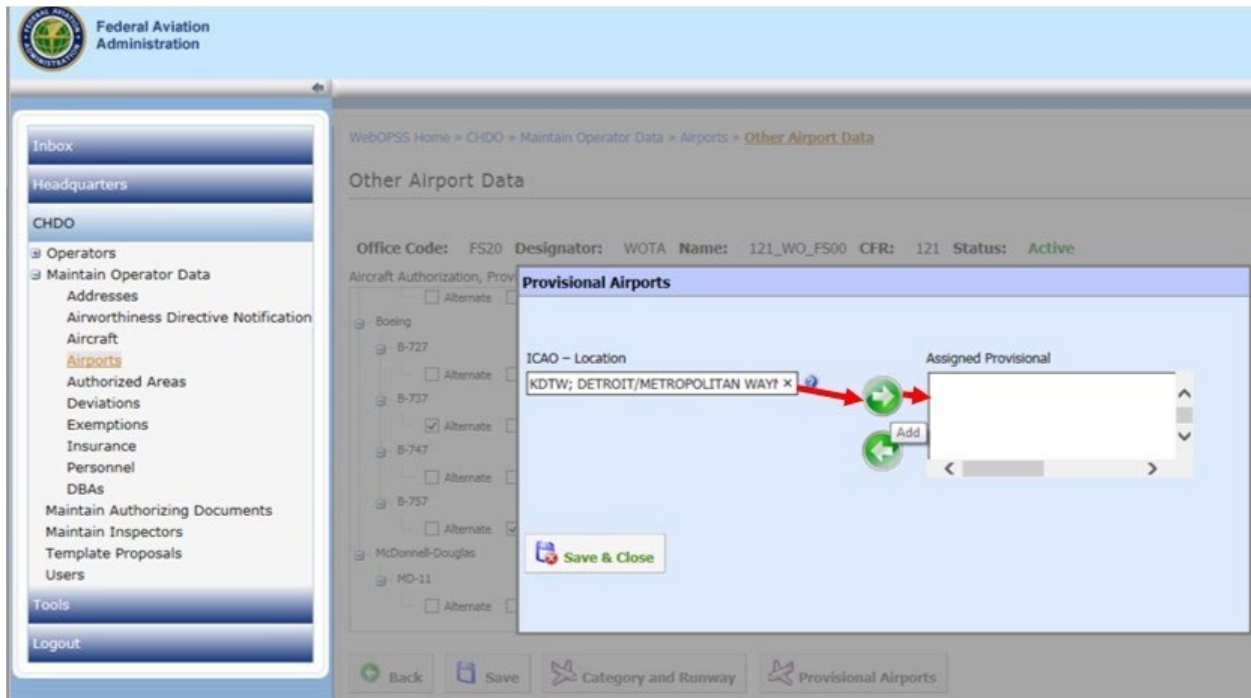
Aircraft Authorization, Provisional Airports and ETOPS Data: OMAA

[-] Airbus						
[-] A-320	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops
[-] A-330	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops
[-] Boeing						
[-] B-737	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops
[-] B-747	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops
[-] B-757	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops
[-] B-767	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternate	Refueling	Regular	Provisional	ETOPS Alternate	Polar Ops

 **Back**  **Save**  **Category and Runway**  **Provisional Airports**



Figure 3-233. Sample Assignment of Provisional Airport in WebOPSS



AIRPORTS	Provisional	Aircraft	
ALLENTOWN/LEHIGH VALLEY INTL, PA., UNITED STATES; KABE	KPHL	A-320	B-737

Figure 3-234. Sample Completed List of Airports Authorized for Scheduled Operations

AIRPORTS		AIRCRAFT AUTHORIZED			
Location	Provisional	A-300	A-319	B-727	B-737
AKRON-CANTON REGIONAL, OH., UNITED STATES; KCAK	N/A	A	-	F	-
ALBANY INTERNATIONAL, NY., UNITED STATES; KALB	N/A	R	R	R	A
ALLENTOWN/LEHIGH VALLEY INTL, PA., UNITED STATES; KABE	N/A	-	-	R	-
ASHEVILLE REGIONAL, NC., UNITED STATES; KAVL	N/A	R	R	R	-
ATLANTA/HARTSFIELD-JACKSON ATLANTA INTL, GA., UNITED STATES; KATL	N/A	-	-	A	R
ATLANTIC CITY/INTL, NJ., UNITED STATES; KACY	N/A	-	-	A	R
AUGUSTA/AGUSTA REGIONAL AT BUSH FIELD, GA., UNITED STATES; KAGS	N/A	-	-	R	-
BALTIMORE-WASHINGTON INTL. THURGOOD MARSHALL, MD., UNITED STATES; KBWI	N/A	R	R	R	R
BANGOR/INTL, ME., UNITED STATES; KBGR	N/A	F	A	R	F
BIRMINGHAM, AL., UNITED STATES; KBHM	N/A	R	-	-	R
BLOOMINGTON/NORMAL/CENTRAL ILLINOIS REGIONAL, IL., UNITED STATES; KBMI	N/A	R	-	-	-
BOSTON/GENERAL E.L.LOGAN INTL, MA., UNITED STATES; KBOS	N/A	R	-	R	-
BRADLEY INTL AIRPORT WINDSOR LOCKS, CT., UNITED STATES; KBDL	KBOS	R	-	R	-
BRISTOL/JOHNSON/KINGSPORT/TRI-CITIES REGIONAL, TN., UNITED STATES; KTRI	N/A	R	F	R	R
BUFFALO NIAGARA INTL AIRPORT, NY., UNITED STATES; KBUF	N/A	R	F	R	-
BURLINGTON/INTL, VT., UNITED STATES; KBTV	N/A	R	A	R	R
CHARLESTON/AFB INTL, SC., UNITED STATES; KCHS	N/A	R	A	R	R
CHARLESTON/YEAGER, WV., UNITED STATES; KCRW	N/A	A	A	R	-
CHARLOTTE/DOUGLAS INTL., NC., UNITED STATES; KCLT	N/A	R	-	R	F
CHARLOTTESVILLE-ALBEMARLE, VA., UNITED STATES; KCHO	N/A	R	-	R	R
CHATTANOOGA/LOVELL FIELD, TN., UNITED STATES; KCHA	N/A	-	-	R	R
CHICAGO/O'HARE INTL, IL., UNITED STATES; KORD	N/A	-	-	-	-
CINCINNATI/NORTHERN KENTUCKY INTL, OH., UNITED STATES; KCVG	N/A	-	-	R	-

OPSPEC/LOA C071—AUTOPILOT MINIMUM USE ALTITUDES/HEIGHTS (MUH).

A. Applicability. OpSpec/LOA C071 is a mandatory authorization for certificate holders/operators who want to operate an autopilot below 500 feet above ground level (AGL), during takeoff or approach operations. Autopilot minimum use altitudes/heights (MUHs) in this OpSpec/LOA are applicable to 14 CFR parts 121, 125 (including 125 Letter of Deviation

Authority (LODA) holders), and 135. OpSpec/LOA C071 will base its authorization on part 121, § 121.579; part 125, § 125.329; and part 135, § 135.93. OpSpec/LOA C071 does not replace or override OpSpec/LOA C059, Special Authorization Category I (SA CAT I) Instrument Approach and Landing Operations (optional: parts 121, 125 (including part 125 LODA holders (LODA A125)), and 135 operators); OpSpec/LOA C060, Category II and Category III Instrument Approach and Landing Operations; or OpSpec C061, Flight Control Guidance Systems For Automatic Landing Operations Other Than Categories II and III authorizations. The Administrator has authorization to require an altitude higher than the Airplane Flight Manual (AFM).

1) Approved Airplanes and Equipment. Table 1 lists the airplane configuration and the associated MUHs approved for each individual phase of flight. Airplanes with same make, model, and series (M/M/S), but equipped with a different autopilot model/version and MUHs, must be listed separately.

NOTE: This OpSpec/LOA uses “altitude/height” when referencing MUHs. AFMs use “altitude” or “height” in referencing MUH.

Table 1 – Approved Airplanes, Equipment and MUHs

Airplane Type (M/M/S)	Autopilot Manufacturer	Autopilot Model/Version	Minimum Use Heights/Altitudes (feet)		
			Takeoff/Initial Climb	Enroute	Approach

2) Determining MUHs. Specified MUHs and/or specified altitude/height losses published in the AFM will be the basis for this OpSpec/LOA. The following criteria will be used by this OpSpec/LOA to authorize any alternatives to these altitudes:

a) If the Flight Standardization Board Report (FSBR) recommends a higher altitude than the AFM, the higher Flight Standardization Board (FSB) (Administrator) altitude will be the authorized altitude.

b) If an FSBR is not available, or does not address autopilot use altitudes, the lowest authorized altitude in the AFM will be used.

c) If an FSBR is not available and the AFM does not address autopilot use altitudes/heights, the lowest authorized altitude/height shall be the basic MUH for a given phase of flight.

3) Takeoff/Initial Climb and Go-Around/Missed Approach Engagement Height. The basic minimum engagement height for an autopilot on takeoff/initial climb and go-around/missed approach is 500 ft. The following exceptions to the 500 ft basic engagement height are:

a) A higher altitude/height if doubling the “altitude/height loss” specified in the AFM is greater than 500 ft.

b) A minimum engagement altitude is specified in the AFM, or

c) An altitude/height recommended by the FSB, that is no lower than the AFM or double the “altitude/height loss.”

4) En Route MUHs. The lowest MUH during en route operations is 500 ft above the ground, except as follows:

a) If doubling the “altitude/height loss” specified in the AFM results in an altitude/height greater than 500 ft, or

b) A greater altitude recommended by the FSB.

5) Approach MUHs. The MUH during approach operations is no lower than 50 ft below the lowest decision altitude/height (DA/H) or minimum descent altitude/height (MDA/H) for the instrument procedure being flown, except as follows:

a) For autopilots with an AFM-specified altitude/height loss for approach operations:

1. An altitude no lower than twice the specified altitude/height loss if greater than 50 ft below the DA/H or MDA.

2. An altitude no lower than 50 ft higher than the altitude loss specified in the AFM when:

a. Reported weather conditions are less than the basic visual flight rules (VFR) weather conditions in 14 CFR part 91, § 91.155,

b. Suitable visual references specified in § 91.175 have been established on the instrument approach procedure (IAP), and

c. The autopilot is coupled and receiving both lateral and vertical path references.

3. An altitude no lower than the greater of the altitude loss specified in the AFM or 50 ft when:

a. Reported weather conditions are equal to or better than the basic VFR weather conditions in § 91.155, and

b. The autopilot is coupled and receiving both lateral and vertical path references.

4. A greater altitude recommended by the FSB.

b) For autopilots with AFM-specified approach altitude/height limitations, and the autopilot is coupled and receiving both lateral and vertical path references, the greater of:

1. The MUH specified for the coupled approach mode selected,
2. Fifty feet, or
3. An altitude recommended by the FSB.

c) For autopilots with an AFM specified negligible or zero altitude loss for an autopilot approach mode malfunction, and the autopilot is coupled and receiving both lateral and vertical path references, the greater of:

1. Fifty feet, or
2. An altitude specified by Administrator.

6) Types of Certificates. Airplanes with specified MUHs, specified negligible or zero height loss, or specified height loss will meet the following criteria:

a) Will be published in the AFM and the autopilot approved in accordance with an FAA type certificate (TC).

b) Will be published in an AFM Supplement (AFMS) and issued as a Supplemental Type Certificate (STC).

7) AFM. The AFM and its supplements are the primary resource for establishing autopilot MUHs and issuing OpSpec/LOA C071. The AFM contains operational procedures and limitations approved by the responsible Aircraft Certification Service offices.

8) Aircraft Evaluation Group (AEG). The Principal Operations Inspector (POI) may use the AEG as a liaison between the PI and responsible Aircraft Certification Service office during the AFM approval process when there are any questions regarding the AFM, FSB, or any other subject found in the list above.

9) Operator Produced Manuals. An Airplane Operations Manual (AOM), General Operations Manual (GOM), or Flightcrew Operating Manual (FCOM) is an operator published document. Although produced in accordance with parts 121, 125, and 135, use information directly from AFM to issue OpSpec/LOA C071. Do not solely use information from operator produced manuals to issue OpSpec/LOA C071. The AFM establishes the basis for the limitations, operational procedures, and performance sections published in these documents.

10) Manuals With Takeoff Procedures. Some AOMs, GOMs, or FCOMs contain procedures for systems not specifically designed with a takeoff or approach mode. Do not use these types of procedures as a basis for approving procedures and training programs that relate to achieving necessary takeoff or approach performance.

a) Principal inspectors (PI) approving, or who have approved, performance-related takeoff or approach procedures and training for systems not specifically designed with these modes should coordinate with the responsible AEG.

b) The AEG, in coordination with the responsible Aircraft Certification Service office, should be able to provide inputs on the procedure, and propose conditions and limitations, if any, as appropriate.

B. Training Program. Flightcrews must be trained in accordance with the certificate holder/operator's training program. Certificate holder/operator training programs should specifically address the following topics:

- 1) Autopilot function, use, and limitations relative to approach and navigational source used.
- 2) Flight management system (FMS) function, use, and limitations relative to approach and navigational source used.
- 3) Procedures, modes, and configurations for flying an autopilot coupled approach.
- 4) Applicable monitoring and cross check requirements.
- 5) Suitable accuracy checks using control display unit (CDU) pages or flight instrument displays.
- 6) Display use, including deviation indications and display scaling.
- 7) Pilot flying (PF) and pilot monitoring (PM) duties and callouts during: descent, approach, landing, and missed approach.
- 8) Understanding and interpretation of U.S. terminal procedures (e.g., departure procedures, Standard Terminal Arrival Routes (STAR), and IAPs).
- 9) Understanding, interpretation, and proper response to appropriate failure indications prior to initiation of an approach or during an approach.
- 10) Proper techniques to accomplish any special flight deck procedure specified by the certificate holder/operator for the approach type used or for the particular approach to be flown.
- 11) Any unique issues particular to a specific approach or family of approach procedures, airplane, or FMS.
- 12) Proper techniques for executing a missed approach during any segment of the approach with the autopilot engaged or disengaged.
- 13) The flightcrew must have successfully completed training for Auto Flight Guidance System (AFGS) operations at the MUHs.

14) Understanding the limitations of navigational systems used for approach operations (e.g., instrument landing system (ILS) facility performance classification codes and their expected performance found in the Airport/Facility Directory (A/FD) section of the Chart Supplements).

C. Maintenance Program. The certificate holder/operator shall conduct operations in accordance with the airworthiness certification of the autopilot found in 14 CFR part 25, § 25.1329. The certificate holder/operator must also review the established maintenance and reliability program. The design of the program should ensure the equipment functions to the prescribed levels as delivered by the manufacturer, and include maintenance and preventative maintenance. Reference appropriate manuals for compliance with manufacturers' recommendations.

OPSPEC C072—ENGINE OUT DEPARTURE PROCEDURES WITH APPROVED 10 MINUTE TAKEOFF THRUST TIME LIMITS.

A. General. OpSpec C072 is optional and authorizes the certificate holder to use engine-out departure procedures (DPs) under the provisions of 14 CFR parts 121, 125, and/or 135, as appropriate, using airplanes that are equipped with powerplants that are approved 10-minute takeoff thrust time limits in accordance with the provisions of this guidance and OpSpec C070.

B. Takeoff Obstacle Climb Data in the Aircraft Flight Manual (AFM). The manufacturer's AFM must include takeoff obstacle climb data for use with a 10-minute, engine-out takeoff thrust time limit. This AFM data must be applied to the certificate holder's airplane engine-out takeoff obstacle analysis to provide critical obstacle clearance in the event of an engine failure during takeoff.

1) The FAA Transport Airplane Directorate and the Engine and Propeller Directorate have developed a procedure to certify and revise airplane manufacturers' AFMs to include takeoff obstacle climb data for use with a 10-minute, engine-out takeoff thrust time limit.

2) Previously, airplane operators' AFM takeoff data only provided data for a 5-minute takeoff thrust time limit. Airplane operators may obtain revised AFMs from airplane manufacturers for specific airplane/engine combinations. This AFM data may then be applied to the airplane operator's engine-out takeoff obstacle analysis to provide critical obstacle clearance in the event of an engine failure during takeoff.

C. Airplane Thrust Limit Restrictions. Because it is assumed that not all airplanes operated by an air carrier will have their AFMs revised for 10-minute takeoff thrust data, some operators' airplane takeoff thrust limits may be restricted to 5 minutes, while other airplanes in the same fleet may have the 10-minute restriction. Certain criteria must be addressed to inform the pilot which limit is applicable in the event of an engine failure during takeoff.

D. Engine-Out DPs. The certificate holder's approved operations manual and training program must include the engine-out DPs specifically designed to use the 10-minute takeoff thrust time limits. These DPs require that airplane operator's training programs, manuals, and procedures address the following areas:

- 1) Air carrier performance engineers' evaluation of engine-out DPs specifically designed to use the 10-minute takeoff thrust time limit.
- 2) An FAA AFM revision outlining operational procedures with specific airplane/engine lists that involve the 10-minute takeoff thrust time limit.
- 3) An FAA-approved dispatch or similar acceptable system that provides specific 10-minute, engine-out takeoff thrust departure procedure information to the pilot for the impending flight concerning the airport, aircraft weight, and departure path.
- 4) Information readily available to the pilot that indicates airplanes authorized for 10-minute takeoff thrust operations in the event of an engine failure on takeoff.
- 5) Pilot knowledge of the designed engine-out departure procedure that uses the 10-minute takeoff thrust time limit.
- 6) Pilot training of the 10-minute takeoff thrust time limit departure flight procedure.

OPSPEC/MSPEC/LOA C073—VERTICAL NAVIGATION (VNAV) INSTRUMENT APPROACH PROCEDURES (IAP) USING MINIMUM DESCENT ALTITUDE (MDA) AS A DECISION ALTITUDE (DA)

A. Applicability. OpSpec/MSpec/LOA C073 is applicable to all operators conducting airplane operations under 14 CFR parts 91, 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. OpSpec/MSpec/LOA C073 will be used in conjunction with OpSpec/MSpec/LOA C052 unless it's for part 91 (C052 is not required for part 91 operators). OpSpec/MSpec/LOA C073, in accordance with part 91, § 91.175, which states, "unless otherwise authorized by the FAA," authorizes operators to use a minimum descent altitude (MDA) as a decision altitude (DA) when using vertical navigation (VNAV) as advisory information.

B. VNAV Operating Concept. The VNAV operating concept is to fly approach procedures using VNAV guidance with a defined Vertical Path (VPATH) that provides a continuous descent final approach (CDFA).

NOTE: C073 provides protection for the temporary altitude loss below the MDA when performing a missed approach at an MDA used as a DA. The use of an MDA as a DA does not ensure obstacle clearance when continuing the approach from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when § 91.175 requirements are met and the approach is continued below the MDA for landing.

C. Airplane Type and Area Navigation (RNAV) System. OpSpec/MSpec/LOA C073, Table 1 will list the airplane type by make, model, and series (M/M/S) and the RNAV system by model and version. Below are the requirements for the airplane(s) and RNAV System(s) listed in Table 1.

1) The installed navigation equipment with VNAV was certified and documented in accordance with Advisory Circular (AC) 20-129, Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S. National Airspace System (NAS) and Alaska (now canceled), or AC 20-138, Airworthiness Approval of Positioning and Navigation Systems (revision A and later). The types of certification include: type certificate (TC), amended TC, Supplemental Type Certificate (STC), and amended STC. An FAA-equivalent approval may also include a Service Bulletin (SB) installation with approved data by the air carrier. The following are accepted ways to determine certification:

a) A statement in the FAA-approved Airplane Flight Manual (AFM) showing that the aircraft is equipped with a VNAV system that was certified in accordance with AC 20-129 (now canceled) or AC 20-138 (revision A and later).

NOTE: AC 20-129 (now canceled) applied only to barometric vertical navigation (baro-VNAV), while AC 20-138A applied only to Satellite-Based Augmentation Systems (SBAS) and Ground Based Augmentation Systems (GBAS).

NOTE: AC 20-129 was canceled when guidance information for baro-VNAV, SBAS, and GBAS was combined into AC 20-138B and later versions. Any operator authorized C073 with aircraft approved for baro-VNAV under AC 20-129 (now canceled) is allowed to maintain their C073 authorization with approved aircraft.

b) An Aircraft Evaluation Division (AED) verification that the applicant's aircraft and flight management system (FMS) meets AC 20-129 (now canceled) or AC 20-138 (revision A or later) criteria for VNAV operations. This may replace the requirement for an FAA-approved AFM statement or an applicable Flight Standardization Board Report (FSBR).

2) The operator is required to provide documentation proving that airworthiness maintenance practices and procedures are being accomplished.

3) The operator must review and revise the minimum equipment list (MEL), as necessary, to address any pertinent VNAV or FMS operating requirements.

NOTE: New software versions do not have to be updated in the table if inspectors confirm that an advisory vertical guidance capability remains after the software update. The confirmation should be confirmed by the updated SB, a manufacturer/Original Equipment Manufacturer (OEM) statement, or any other FAA-approved method.

D. Authorized Approaches. The operator may use an MDA as a DA on all 14 CFR part 97 nonprecision straight-in instrument approach procedures (IAP) listed in their OpSpec/MSpec/LOA C052, Table 1, column 1 and that meet the requirements in OpSpec/MSpec/LOA C073. C052 is not applicable to part 91 operators, but they must meet the requirements in LOA C073.

E. Approach Design Requirements. The IAP must conform to the following procedural design:

1) Have a VNAV path angle greater than or equal to 2.75 and equal to or less than 3.77 degrees for Category A, B, and C airplanes; and a VNAV path angle greater than or equal to 2.75 and equal to or less than 3.50 degrees for Category D airplanes.

2) Steeper descent paths may be authorized in accordance with the current edition of AC 120-29, Criteria for Approval of Category I and Category II Weather Minima for Approach. Submit aircraft capability and supporting procedures to the Flight Technologies and Procedures Division (AFS-400) via the Principal Operations Inspector (POI).

F. Database. The database must be certified in accordance with AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases. The procedure must be retrievable from a current database. Source data or database providers must provide for the specification of a VPATH that ensures operation above stepdown fix altitudes between the threshold and the final approach fix (FAF).

NOTE: The procedure must be loaded from the database and cannot be modified.

G. Flightcrew Training. Flightcrews must be trained in accordance with the operator's approved training program, to include VNAV procedures and the IAPs listed in OpSpec/MSpec/LOA C052. Part 91 operators are not required C052. Part 91 and A125 LODA holders must be proficient with VNAV and the IAP to be flown.

OPSPEC C075—CAT I IFR LANDING MINIMUMS—CIRCLING APPROACHES.

A. General. OpSpec C075 is issued to operators who conduct 14 CFR parts 121, 125, and 135 operations with fixed-wing airplanes. OpSpec C075 specifies the lowest minimums that can be used for Category (CAT) I circling approach maneuvers. It also provides special limitations and provisions for instrument approach procedures (IAP) at foreign airports. See Volume 4, Chapter 2 for more information on required training for circling maneuvers.

B. Circle-to-Land Maneuver. For the purpose of this OpSpec authorization, any operator who is issued this paragraph is authorized to conduct circle-to-land maneuvers. In any weather condition, a certificate holder that permits its pilots to accept a "circle to land" or a "circle to runway (runway number)" clearance from air traffic control (ATC) conducts circle-to-land maneuvers. The term "circle-to-land maneuver" includes the maneuver that is referenced in various regulations, publications, and documents as "circle-to-land maneuver," "circling," "circling maneuver," "circle," "circling approach," and "circling approach maneuver." With regard to pilots, "conducting" a circle-to-land maneuver means to act as the pilot flying (PF) when a circle-to-land maneuver is being conducted.

C. Operations Under Instrument Flight Rules (IFR) During Circle-to-Land. Aircraft operating under IFRs during all circle-to-land maneuvers are required to remain clear of clouds. If visual reference to the airport is lost while conducting a circle-to-land maneuver, the missed approach procedure specified for the applicable instrument approach must be followed, unless an alternate missed approach procedure is specified by ATC.

D. Documenting Maneuver Descriptions and Procedures. Each certificate holder who is issued OpSpec C075, and who is also required to have maneuver descriptions/procedures, must publish in its training manual, or must incorporate in its training manual by reference to another approved manual, a detailed description of the procedures used to conduct a circle-to-land maneuver. Pilots must conduct circle-to-land maneuvers using those procedures.

E. Provisions for Part 121 Certificate Holders to Perform Circle-to-Land Maneuvers. Part 121 certificate holders may conduct circle-to-land maneuvers under two separate provisions within OpSpec C075.

1) Part 121 Operations With Flight Training and Flight Checking. Part 121 certificate holders whose pilots have been trained and checked for the circling maneuver in accordance with part 121 appendices E and F, or in accordance with an Advanced Qualification Program (AQP), may conduct a circle-to-land maneuver:

- At the published circling landing minimums for the instrument approach to be used; or
- At the minimums specified in the chart contained within the OpSpec, whichever is higher.

a) Appendix E does not require a part 121 certificate holder to train a second in command (SIC) in the circling maneuver if the certificate holder prohibits the SIC from performing/conducting (acting as PF) a circling maneuver. However, an SIC must be trained and can be checked in those functions specific to the circle-to-land maneuver that the SIC is required to perform while acting as pilot monitoring (PM).

b) Any pilot who possesses a pilot certificate restricting circling approaches to visual meteorological conditions (VMC) is not eligible to conduct circle-to-land maneuvers, except as provided in subparagraph E2.

2) Part 121 Operations Without Flight Training and Flight Checking. Certificate holders conducting circle-to-land maneuvers without training and checking must use a minimum descent altitude (MDA) of 1,000 feet height above airport (HAA) or the MDA of the published circling landing minimums for the instrument approach to be used, whichever is higher. Certificate holders that conduct a circle-to-land maneuver under this provision remain under an IFR clearance and must comply with those procedures otherwise required for circle-to-land maneuvers. Certificate holders must ensure that pilots are familiar with those procedures. Part 121 pilots who have not been trained and checked for the circling maneuver in accordance with part 121 appendices E and F, or in accordance with an AQP, may conduct a circle-to-land maneuver when:

- The reported ceiling is at least 1,000 feet and the visibility is at least 3 statute miles (refer to part 121 appendices E and F); or
- The reported weather is at least equal to the published circling landing minimums for the instrument approach to be used, whichever is higher.

F. Circle-to-Land Maneuvers Regarding Part 125. Part 125 certificate holders are not permitted to conduct circle-to-land maneuvers in airplanes without their pilots having been checked in that maneuver.

1) Approach Requirements. Part 125, § 125.291(b) States: “The instrument approach procedure or procedures must include at least one straight in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.”

2) Required Part 125 SIC. The SIC must complete the competency check within the preceding 12 calendar-months as required by § 125.287. The circle-to-land maneuver is not part of the § 125.287 competency check. However, each SIC is evaluated for flightcrew coordination.

3) PM Duties. Each crewmember can be checked in those functions specific to the circle-to-land maneuver that the pilot is required to perform while acting as PM.

G. Circle-to-Land Maneuvers Regarding Part 135. Part 135 certificate holders are not permitted to conduct circle-to-land maneuvers in aircraft without their pilots having been checked in that maneuver. (Helicopter IFR circle-to-land maneuvers are authorized in OpSpec H118.)

1) Part 135, § 135.297 Pilot-in-Command (PIC) Instrument Proficiency Check (IPC).

a) Section 135.297(a) does not allow “any person to serve, as a pilot in command of an aircraft under IFR unless, since the beginning of the 6th calendar month before that service, that pilot has passed an instrument proficiency check under this section...”

b) Section 135.297(b) requires, “The instrument approach procedure or procedures must include at least one straight-in approach, one circling approach, and one missed approach. Each type of approach procedure demonstrated must be conducted to published minimums for that procedure.” The requirement to demonstrate a circle-to-land maneuver applies to both airplanes and helicopters.

c) Part 135 single-pilot and single PIC operators are not required to have training programs. However, the circle-to-land maneuver must be successfully demonstrated in every § 135.297 IPC.

2) Part 135 IFR Operator Requirements. In accordance with § 135.293, a part 135 IFR operator must ensure that each SIC has completed a competency check within the preceding 12 calendar-months. In accordance with Volume 3, Chapter 19, Section 7, an SIC need not be evaluated in “circling approaches” when an operator’s procedures restrict an SIC from conducting (acting as PF) this event in revenue service. However, each required SIC authorized to conduct IFR operations is evaluated for flightcrew coordination.

3) PM Duties. Each pilot must be trained and can be checked in those functions specific to the circle-to-land maneuver that the pilot is required to perform while acting as PM.

4) **Part 135 IPCs.** The standard of competence for part 135 IPCs is specified in § 135.293(e).

***TSPEC C075—CIRCLING APPROACH PROCEDURES (and Continuation TSspecs C175, C176, and C177).** Training Center Program Managers (TCPM) issue TSpec C075 to authorize certain circling approach procedures for use in specific flight simulation training devices (FSTD). This can result in a large amount of information on C075. To accommodate this, C175, C176, and C177 have been introduced as “continuation” TSspecs. These new TSspecs must be used in sequential order. Each successive TSpec must reach 40 pages before using the next sequentially-numbered TSpec, unless reaching the 40-page mark will result in a list of circling approach procedures for an FSTD breaking across TSspecs. Circling approach procedures for an FSTD must be listed and authorized on one TSpec. If reaching 40 pages will result in a break, proceed to the next sequential TSpec without reaching the specified 40 pages in order to accommodate the complete list on one TSpec. More detailed information can be found in Volume 3, Chapter 54.

OPSPEC/MSPEC C076—CAT I IFR LANDING MINIMUMS—CONTACT APPROACHES. The certificate holder must not use any instrument flight rules (IFR) Category (CAT) I landing minimum lower than that prescribed by the applicable published instrument approach procedures (IAP). The IFR landing minimums prescribed in paragraph C052 for nonprecision and precision approaches are the lowest CAT I minimums authorized for use at any airport. For helicopter authorization, see OpSpec H119.

OPSPEC C077—TERMINAL VISUAL FLIGHT RULES, LIMITATIONS, AND PROVISIONS.

A. Applicability. OpSpec C077 is an optional authorization that is applicable to all certificate holders conducting operations under the provisions for 14 CFR part 135 on-demand turbojet, all 14 CFR part 121 certificate holders, and 14 CFR part 129 foreign air carriers (except for rotorcraft operations). Information on C077 for part 129 foreign air carriers is contained in Volume 12, Chapter 2, Section 5. Information regarding C077 contained in this section applies only to certificate holders conducting parts 121 and 135 operations.

B. Charted Visual Flight Procedure (CVFP). OpSpec C077 provides for operations under a CVFP unless operating under the provisions of 14 CFR part 93 or Special Federal Aviation Regulation (SFAR) 50-2, Special Flight Rules in the Vicinity of the Grand Canyon National Park, AZ. The minimums in the CVFP may not be lower than those required by part 121, § 121.649 or part 135, § 135.205, as applicable.

C. Visual Flight Rules (VFR) Weather Condition Minimums. The VFR weather conditions specified in 14 CFR part 91, § 91.155 may be used. However, where § 91.155(c) and (d) refers to § 91.157, the minimums set forth in § 121.649 or § 135.205 (or as determined under § 135.213(a), when necessary), as applicable, take precedence for operations conducted under part 121 or 135.

D. Uncontrolled Airports (OpSpec C077 Subparagraph c(2)(b)). Uncontrolled airports can be in either controlled or uncontrolled airspace. As long as the provisions listed in

this subparagraph are met, the certificate holder may operate VFR in uncontrolled airspace in the terminal area in accordance with this OpSpec. For the purpose of direct communication at uncontrolled airports, a common traffic advisory frequency (CTAF) may be utilized as long as it is associated with an air/ground communication facility. The CTAF may be an Aeronautical Advisory Station (UNICOM), MULTICOM, Flight Service Station (FSS), or a tower frequency. Acceptable air/ground communication is a demonstrated reliable means to directly relay traffic advisories (TA) and information that is pertinent to conditions on and around the landing surface during the terminal phase of flight. For example, if the certificate holder adequately demonstrates to the principal operations inspector (POI) its reliability to relay essential information, via radio or another type of communication, through an agent located near the landing surface, it is considered to be a “demonstrated reliable means” of communication.

E. OpSpec C077 Subparagraph c(3). In lieu of a published CVFP, an authorized visual guidance procedure such as the use of Area Navigation (RNAV) Visual Flight Procedures (RVFP) is highly recommended for all terminal VFR departures/arrivals that fall under this OpSpec. The proximity of obstacles to the departure flightpath, the visibility, the accuracy of the guidance and control systems, the pilot’s proficiency, and the certificate holder’s training should determine the size of the area in which obstacle clearance or avoidance must be considered. The POI should also take into account the airplane performance data described in Volume 4, Chapter 3.

F. Terminal Departures VFR. At airports that do not have an operating air traffic control (ATC) facility, subparagraph d of C077 allows a flightcrew on an instrument flight rules (IFR) flight to take off and depart under VFR without obtaining an IFR clearance, provided all of the conditions and limitations of C077 subparagraphs d(1) through (4) are met. The flightcrew must obtain an IFR clearance as soon as it is practical after takeoff, but under no circumstances farther than 50 nautical miles (NM) from the departure airport. In the case where a certificate holder is issued OpSpec B051 for VFR en route operations in conjunction with C077, the flightcrew may apply the provisions of B051, where applicable, in lieu of obtaining an IFR clearance.

1) At other airports, ATC may have established a “charted visual departure procedure” with a transition to IFR that permits aircraft to depart the airport under VFR and activate its IFR clearance at a designated point and/or altitude as published on the procedure.

a) Use of the charted visual departure procedure requires that all of the conditions and limitations of C077 subparagraphs d(1) through (4) be met. These procedures are established by the FAA and published in the FAA Chart Supplement as a Terminal Area Graphic Notice in the Special Notices section and may also be located online at the Aeronav products website at https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/.

b) Flightcrews must specifically request this type of procedure by name and ATC may issue a clearance for the aircraft to depart using the visual departure procedure. In this instance, the flight will have an IFR flight plan filed and will have received its IFR clearance prior to departure. This will include a clearance to depart the airport under VFR using the procedure published in the Graphic Notice for the airport of departure. The IFR clearance is activated at the point and/or altitude described in the Graphic Notice.

c) Flightcrews must comply with the flightpath/course to be flown, altitudes, and speed limitations published on the procedure, in addition to maintaining their own terrain and obstruction clearance until their IFR clearance is activated at a specific point and/or above a specific altitude as defined by the procedure.

2) Responsibility for traffic separation with other VFR aircraft when operating in Visual Meteorological Conditions (VMC) remains with the flightcrew. Flightcrews should advise ATC if a revised clearance or instruction is required to maintain VFR while on a charted visual departure procedure.

G. Terminal Departures IFR Requirements (OpSpec C077 Subparagraph e).

Subparagraph e allows the flightcrew to accept an IFR clearance that contains a takeoff and climb in VFR conditions to a specified point in the clearance. The certificate holder must ensure that the obstacle performance requirements are met.

H. Special Limitations and Provisions for VFR (OpSpec C077 Subparagraph f).

Subparagraph f provides special limitations and provisions for all VFR operations. This subparagraph is applicable to all the provisions and limitations of C077.

1) **Subparagraph f(1).** In order for the certificate holder to conduct terminal VFR operations under C077, they must have in place either a procedure or program which can identify obstacles in the planned flightpath, and the associated airport obstacle data, to ensure adequate information is available for arrival operations and for the takeoff and departure performance requirements specified by operating rules and this OpSpec. Further, they must ensure use of that information by the flightcrew.

2) **Subparagraph f(2).** Although each subparagraph has specific details and minimums regarding VFR, the requirements for sufficient visibility to identify and avoid obstacles is required for all VFR operations.

OPSPEC C078/C079—IFR LOWER-THAN-STANDARD TAKEOFF MINIMA AIRPLANE OPERATIONS—ALL AIRPORTS.

A. General. C078 and C079 are optional for authorizing lower-than-standard takeoff minimums. The authority for lower-than-standard takeoff minimums is contained in 14 CFR part 121, § 121.651(a)(1); part 125, § 125.381(a)(1); and part 135, § 135.225(g) and (h). When appropriate, Principal Operations Inspectors (POI) will issue OpSpec C078 to part 121 or 125 operators, LOA C078 to part 125 Letter of Deviation Authority (LODA) operators, and OpSpec C079 to part 135 operators. These authorizations contain specific criteria regarding pilots, training and qualifications, aircraft, and airports when lower-than-standard takeoff minimums are used.

NOTE: C078 and C079 are applicable to all airports utilized by the operator.

NOTE: If available for a specific airplane, Flight Standardization Board (FSB) reports should be reviewed for any additional requirements.

NOTE: C079 is not authorized for part 135 single-engine passenger-carrying instrument flight rules (IFR) operations.

NOTE: For the purpose of this OpSpec/LOA, the word “sensor” is used to indicate all approved Runway Visual Range (RVR) systems.

B. Lower-Than-Standard Takeoff Minimums for Part 121 or 125. C078 allows for lower-than-standard takeoff minimums for operators conducting operations under part 121 or 125 (including LODA holders operating under part 125) with the following limitations and provisions:

- 1) Takeoff operations without runway centerline (RCL) lighting are not allowed at less than RVR 1000 (300 meters);
- 2) Takeoff operations using only visual references are not allowed at less than RVR 500 (150 meters);
- 3) Takeoff operations with visibility down to, but not lower than, RVR 300 (75 meters) using approved Head-Up Display (HUD) takeoff guidance systems;
- 4) Authorization for pilot assessment of touchdown zone (TDZ) RVR for takeoff when the installed RVR sensor is inoperative (see subparagraph H); and
- 5) Lower-than-standard takeoff minimums include paragraphs addressing takeoffs down to RVR 1600 (500 meters), RVR 1200 (350 meters), RVR 1000 (300 meters), RVR 600 (175 meters), and RVR 500 (150 meters).

C. Lower-Than-Standard Takeoff Minimums for Part 135. C079 allows for lower-than-standard takeoff minimums for operators conducting operations under part 135 with the following limitations and provisions:

- 1) Lower-than-standard takeoff minimums down to RVR 1600 (500 meters), RVR 1200 (350 meters), RVR 1000 (300 meters), or RVR 500 (150 meters) for part 135 domestic operations. Section 135.225(f) restricts part 135 domestic operators to 1-mile visibility for takeoffs at foreign or military airports unless approved in the CH’s OpSpecs.
- 2) Each aircraft must be operated with a flightcrew consisting of at least two pilots. Use of an autopilot in lieu of a required second in command (SIC) is prohibited.
- 3) Each pilot in command (PIC) must have at least 100 hours of flight time as PIC in the specific make and model airplane used under this authorization. Each PIC must have satisfactorily completed the operator’s approved training program (as applicable) and a qualification check for the minimums approved by this authorization. This includes the methods to be used to ensure compliance with the aircraft performance limitations during takeoffs with RVR less than RVR 1000 (300 meters), when applicable.
- 4) Any part 135 SIC authorized to manipulate the flight controls during lower-than-standard takeoff minimums must have at least 100 hours of flight time as a pilot in

the specific make and model airplane, and must have satisfactorily completed the operator's approved training program and qualifications check for those minimums, when applicable.

5) For takeoffs when the RVR is less than RVR 1000 (300 meters), each airplane used must be operated at a takeoff weight that permits the airplane to achieve the performance equivalent to the takeoff performance specified in § 135.367 (for reciprocating-powered airplanes), § 135.379 (for turbine-powered airplanes), or § 135.398 (for commuter category airplanes).

6) There are some circumstances in which an operations inspector for a part 135 air carrier may consider issuing this OpSpec for airplanes certificated under Civil Air Regulations (CAR) 3 or 14 CFR part 23. Those airplanes have to meet the 14 CFR part 25 avionics equipment requirements necessary to hold a C079 authorization, which requires that each pilot station must have:

a) Operational equipment that displays a reliable indication of the following:

1. Aircraft pitch and bank information (attitude) (from a gyroscopic or attitude heading reference system source);

2. Aircraft heading (from a gyroscopic or magnetic direction indicating source);

3. Vertical Speed (VS);

4. Airspeed; and

5. Altitude.

b) An independent source of power for the equipment required by subparagraph C6)a)1 and C6)a)2.

7) Single-engine passenger-carrying operations are not authorized.

8) Lower-than-standard takeoff minima can be authorized for part 135 single-engine all-cargo operations in turbine-powered airplanes. The requirements of subparagraphs C2) and C5) above are not applicable to single-engine all-cargo operations in turbine-powered airplanes certificated for single pilot operation. However, the CH must meet the takeoff performance requirements specified in part 135 subpart I for the category of airplane utilized. The POI authorizes single-engine all-cargo operations by selecting subparagraph g(8) on OpSpec C079.

D. Lower-Than-Standard Takeoff Minimums Using HUD Systems. C078 and C079 provide for the authorization of lower-than-standard takeoff minimums using HUD systems with certain limitations and provisions. Although RVR 500 (150 meters) is the lowest authorized minimum when the takeoff is based upon outside visual references (with the exception of operations to foreign or military airports conducted under part 135), RVR 300 (75 meters) is the lowest authorized minimum when using a HUD system on a runway that has been determined to

be served by a Localizer (LOC) providing Category (CAT) III rollout guidance, as indicated by a III/E/4 facility classification. As the HUD systems use the LOC signal for steering commands, the LOC needs to be III/E/4 certified (III=CAT III, E=accurate to at least 2,000 feet from the departure end of the runway, and 4=4,000 hours mean time between failures for the LOC signal). A listing of runways with III/E/4 LOC classifications is available on the Flight Operations Group (AFS-410) website at https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs410.

E. Lower-Than-Standard Takeoff Minimums for TDZ RVR. C078 and C079 authorize lower-than-standard takeoff minimums for TDZ RVR 1600 (500 meters). If TDZ RVR is inoperative, mid-point RVR may substitute for TDZ RVR. Below RVR 1600, two operating RVR sensors are required and controlling. If more than two RVR sensors are installed, all operating RVR sensors are controlling, with the exception of a fourth far-end RVR sensor that may be installed on extremely long runways. A far-end RVR sensor is advisory only. C078 and C079 allow the selection of the following lower-than-standard takeoff minimums based on flightcrew training, checking, and allowed authorizations:

1) TDZ RVR 1200 (350 meters), mid-point (if installed) RVR 1200 (350 meters), and rollout RVR 1000 (300 meters).

2) TDZ, mid-point (if installed), and rollout RVR 1000 (300 meters).

3) TDZ, mid-point (if installed), and rollout RVR 600 (175 meters).

4) TDZ, mid-point (if installed), and rollout RVR 500 (150 meters). Tables 3-24A, Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 1, and 3-26A, Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 2, provide examples of tables that may be included in flightcrew manuals, such as the Flight Operations Manual (FOM).

Table 3-24A. Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 1

Serviceable Runway Visual Aid Required	Lowest Allowable Takeoff Minimum Authorization
If an RVR sensor is not available:	
Adequate visual reference, or any one of the following: HIRL/CLL/RCLM	1/4 sm (400 m)
If an RVR sensor is available:	Note: Below RVR 1600, two operating RVR sensors are required. All operating RVR sensors are controlling (except per the note below for far-end sensors).
Adequate visual reference, or any one of the following: HIRL/CLL/RCLM	RVR 1600 (500 m)/NR/NR Mid-point can substitute for an unavailable touchdown.
Day: CLL or RCLM or HIRL Night: CLL or HIRL	RVR 1200 (350 m)/1200 (350 m)/1000 (300 m)
RCLM and HIRL, or CLL	RVR 1000/1000/1000 (300 m)
HIRL and CLL	RVR 600/600/600 (175 m) or RVR 500/500/500 (150 m)
With an approved HUD takeoff guidance system, HIRL, and CLL	RVR 300/300/300 (75 m)

NOTE: Extremely long runways (e.g., DEN 16R) utilize four RVR sensors (i.e., TDZ, mid, rollout, and far-end). When a fourth far-end RVR value is reported, it is not controlling and is not to be used as one of the two required operative RVR sensors.

Table 3-26A. Runway Equipment Requirements for Lower-Than-Standard Takeoff Minimums—Example 2

Runways with 1 RVR Sensor		
RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
TDZ RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
	RVR 24 or ½	RVR 50 or 1

Runways with 2 RVR Sensors						
Both RVR sensors are required and controlling.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL	TDZ RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
TDZ RVR 3 Rollout RVR 3	TDZ RVR 5 Rollout RVR 5	TDZ RVR 10 Rollout RVR 10	TDZ RVR 12 Rollout RVR 10		RVR 24 or ½	RVR 50 or 1

Runways with 3 RVR Sensors						
Two operating RVR sensors are required. All operating RVR sensors are controlling.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL	TDZ RVR 16 (if TDZ inop) Mid RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
TDZ RVR 3 Mid RVR 3 Rollout RVR 3	TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	TDZ RVR 12 Mid RVR 12 Rollout RVR 10		RVR 24 or ½	RVR 50 or 1

Runways with 4 RVR Sensors						
Two RVR sensors below must be operational. All operating RVR sensors are controlling except far end, which is advisory only.				RCLM or CLL or HIRL or Adequate Visual Reference	Standard	
HUD & CLL & HIRL	CLL & HIRL	CLL, or RCLM & HIRL	RCLM (day only) or CLL or HIRL	TDZ RVR 16 (if TDZ inop) Mid RVR 16 or ¼	3 & 4 Eng	1 & 2 Eng
TDZ RVR 3 Mid RVR 3 Rollout RVR 3	TDZ RVR 5 Mid RVR 5 Rollout RVR 5	TDZ RVR 10 Mid RVR 10 Rollout RVR 10	TDZ RVR 12 Mid RVR 12 Rollout RVR 10		RVR 24 or ½	RVR 50 or 1

F. RVR Applicability to Lower-Than-Standard Takeoff Minimums.

1) Other than the authorization for RVR 1600 (500 meters), which permits use of Runway Visibility Values (RVV) under the appropriate authorization for an operator issued C078 or C079, all the authorizations in C078 and C079 are based on RVR reports that are generated by RVR sensors.

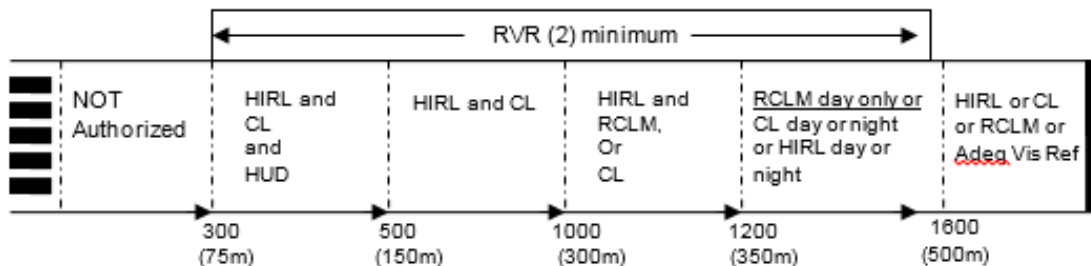
a) “Controlling” RVR means that RVR reports are used to determine operating minimums whenever operating minimums are specified in terms of RVR, and that RVR reports are available for the runway being used.

b) All CAT I operating minimums below ½ statute mile (sm) (RVR 2400) and all CAT II and III operating minimums are based on RVR. The use of visibility is prohibited because the reported visibility may not represent the seeing-conditions on the runway. (See Volume 4, Chapter 2, Section 2, paragraph 4-187.)

c) All takeoff minimums below ¼ sm visibility require RVR values, and the use of RVV for takeoff clearances is prohibited. In these situations, RVR is said to be “controlling”; that is, RVR must be operating and reporting (by requirement, High Intensity Runway Lights (HIRL) also must be working) and at a value equal to or greater than the lowest authorized RVR for the particular clearance.

Figure 3-229. C078 Lower-Than-Standard Takeoff Visibility Quick Reference Chart

C078 Lower-Than-Standard Takeoff Visibility Quick Reference Chart



Note: High Intensity Runway Lights (HIRL) are always available when RVR is available

NOTE: The diagram above is intended as a memory aid intended to help in remembering the various RVR breakdowns and associated requirements within each grouping. For example, two RVR sensors are required for all takeoffs at RVR values less than 1600 (500 meters) (shown above the runway).

2) The following requirements and restrictions apply to the use of RVR values below 1600 feet (500 meters) (in the C078 and C079 templates, simplified wording is used):

a) Where only two RVR sensors are installed, the TDZ and rollout RVR sensors are both required and controlling.

b) Where three RVR sensors are installed on the runway to be used:

1. The TDZ, mid, and rollout RVR reports are controlling for all operations.
2. The failure of any one RVR will not affect operations provided the remaining two RVR sensors are reporting values at or above the appropriate minimums in this subparagraph.

NOTE: Extremely long runways (e.g., DEN 16R) utilize four RVR sensors (e.g., TDZ, mid, rollout, and far-end). When a fourth far-end RVR value is reported, it is not controlling and is not to be used as one of the two required operative RVR systems.

G. Flightcrew Training and Qualification Requirements. If an operator requests authorization to conduct lower-than-standard takeoffs, the flightcrew must be trained and qualified in their respective crew positions for the applicable takeoff minimums requested. The PIC is ultimately responsible for ensuring that the flightcrew members are appropriately qualified before conducting an authorized lower-than-standard takeoff.

- 1) Individual pilots must be trained in their respective crew positions (parts 121 and 135) and checked (parts 121, 125, and 135) in takeoffs using the appropriate requested minimums before being approved for conducting such takeoffs.
- 2) Pilot qualification must consist of an initial check that includes one takeoff at the lowest requested takeoff minimums (full flight simulator (FFS) or simulated in the aircraft with a view limiting device). It is also required during each pilot's recurrent qualification cycle.
- 3) Additional crew qualification for check pilots or a qualified FAA inspector, beyond that shown herein for regular flightcrews, is not required.
- 4) POIs must ensure that operators requesting lower-than-standard takeoff minimums provide appropriate training for flightcrews, including the procedures listed below, as appropriate:
 - Confirming the takeoff runway alignment (Safety Alert for Operators (SAFO) 07003 includes guidance and/or advisory information about acceptable techniques);
 - Rejected takeoffs in a low-visibility environment;
 - Low-visibility instrument takeoff cross-check priorities;
 - Engine failure during critical phases of takeoff in low visibility;
 - Acceleration and climb disorientation factors and illusions;
 - Use of HUD takeoff guidance systems (when installed in aircraft for RVR 300 authorization only);
 - Taxiing in a low visibility environment with emphasis on preventing runway incursion, and Surface Movement Guidance and Control System (SMGCS) training Advisory Circular (AC) 120-57, Surface Movement Guidance and

Control System, current edition, includes guidance and/or advisory information about acceptable techniques;

- Taxiway critical areas;
- Crew coordination and planning;
- Required ground-based visual aids (such as stop bars and taxi holding position lights);
- Required ground-based electronic aids (such as instrument landing system (ILS) and transmissometers); and
- Determination of takeoff alternate airports.

H. Pilot Assessment of IFR Lower-Than-Standard Takeoff Minimums. C078 and C079 allow pilots to make an assessment of the touchdown RVR when the TDZ RVR sensor is inoperative, is not reported, or the pilot determines that the reported TDZ RVR report is in error. This assessment, when equal to or greater than the TDZ RVR requirement for takeoffs made with only outside visual references, or for takeoffs using HUD systems, can be used for takeoff when mid and rollout RVR sensors are available, and are equal to or greater than the required minimums. To be authorized for this pilot assessment, each operator must meet the following requirements:

- 1) For each specific runway for which the assessment is allowed, have an FAA-approved procedure for assessing RVR values that includes:
 - a) Identification of actual distances between runway lights (from 160 feet to 200 feet) on the particular runway for the takeoff in question.
 - b) Identification of an appropriate number and type of runway lights that matches the particular RVR minimums or required visual distance for the takeoff being made.
 - c) Identification of runway markings of known spacing with corresponding distances that must be visible to the pilot from the flight deck when the aircraft is in the takeoff position.
- 2) This procedure must include the effects of variability of runway light intensity settings and changing ambient lighting (day or night). Flightcrew training and checking must assess knowledge of this specific subject area by requiring crews to relate runway markings and number of lights visible to specific known distances.
- 3) For each type of runway where an assessment is allowed, have an FAA-approved procedure for describing the actions to be taken when local visibility conditions, as determined by the pilot, indicate that a significantly different visibility exists from that reported for the TDZ recorded by RVR sensor. The procedure will address types of runway markings, runway lights and distances between lights, and any other runway environmental cues that permit precise distance evaluations by flightcrews.
- 4) For part 121 operations, for each runway where an assessment is allowed, have an FAA-approved procedure for coordinating release with air traffic control (ATC) and dispatch.

5) For part 135 air carriers, the operator must have an FAA-approved procedure for conducting pilot assessment of takeoff visibility contained in its manual, as defined by § 135.21. That procedure will cover the following requirements:

a) How to determine actual visibility measured in number and type of runway lights that are seen, or markings of known spacing that are visible to the pilot when viewed from the flight deck in the takeoff position.

b) How all flightcrew members will be trained and checked in the procedures used to determine visibilities, as described above.

6) Have FAA-approved procedures for RVR assessment, for determining that TDZ RVR sensor reports are in error, and for takeoff and flight release coordination in operating manuals and in such materials that are readily available to the flightcrew in the flight deck.

7) Have an FAA-approved training program and an FAA-accepted validation testing method for the FAA-approved procedures. No flightcrew member may be used in these operations until this portion of the approved training program is completed satisfactorily.

OPSPEC C080—TERMINAL AREA IFR OPERATIONS IN CLASS G AIRSPACE AND/OR AT AIRPORTS WITHOUT AN OPERATING CONTROL TOWER FOR SCHEDULED PASSENGER OPERATIONS. OpSpec C080 is used to authorize terminal area instrument flight rules (IFR) operations for scheduled passenger operations in Class G airspace and/or at airports without an operating control tower.

A. Authorizing Scheduled Terminal Area IFR Operations in Class G Airspace.

Before authorizing scheduled terminal area IFR operations in Class G airspace, or at airports without an operating control tower, the Principal Operations Inspector (POI) must ensure the operator has sufficient content in its manual(s) and training program to cover the requirements of this paragraph. Occasionally, the airport traffic control tower (ATCT) will temporarily close with limited notice. During those events, scheduled operators who can obtain the necessary information required by this paragraph may continue scheduled service into or out of those locations not listed in C080, if the operator has provided all the necessary safety information required. To authorize the temporary closure operations to locations, which are normally 24 hours, and not listed in C080, optional text must be selected and approved. The POI will ensure that the operator has the necessary procedures in place to obtain the information required by this paragraph and provide that information to the pilot in command (PIC) before authorizing use of this non-mandatory text.

B. C080 Table 1 – Airports Authorized for Scheduled Passenger Terminal IFR Operations. The POI must also obtain and list the following information in C080 Table 1.

- 1) Names of airports.
- 2) Sources of weather information to be used by flightcrews (see Volume 3, Chapter 26, Section 3; and Volume 3, Chapter 2).
- 3) Source of traffic advisories (TA) and airport advisories.

C. Critical Information Needed for Operations into Uncontrolled Airports or During ATCT Closures. Safety-critical information that must be available during operations into uncontrolled airports or during ATCT closures includes:

- 1) The airport is served by an authorized instrument approach procedure (IAP).
 - a) If instrument landing system (ILS) approaches are not monitored by an operating air traffic control (ATC) facility, operators should not use those approaches for determining alternate minima in accordance with OpSpec C055.
 - b) Prior to departure, ensure that the Traffic Alert and Collision Avoidance System (TCAS), if installed, is operative.
 - c) The flightcrew and dispatcher or flight follower, as applicable, should review the published instrument missed approach procedures to verify the availability of sufficient navigation facilities that will support a go-around or missed approach.
 - d) Special Authorization (SA) Category (CAT) I, SA CAT II, CAT II/III procedures, closely spaced operations, and ILS/precision runway monitoring (PRM) when the ATCT at an airport is closed are not authorized on approach charts due to the lack of ATC.
- 2) The airport has an approved source of weather. An operator should identify the means the flightcrew will use to obtain weather information if the tower is closed. A backup altimeter source is an approved source of weather and may be used only when designated in the notes of the applicable approach chart. This may result in approach minimums being raised.
- 3) The airport has a suitable means for the PIC to acquire air TAs and the status of airport services and facilities.
 - a) The availability for landing and departing aircraft to obtain this information via the Automatic Terminal Information Service (ATIS). The availability of standard taxi routes for arriving and departing aircraft.
 - b) Whether the airport publishes a frequency for common traffic advisory frequency (CTAF) or if frequency information is provided for tower and ground control operations.
 1. For sources of TAs and airport advisories, certificate holders may be authorized to use any two-way radio source of air TA information listed in the Aeronautical Information Manual (AIM) (for operations in U.S. airspace) or equivalent Aeronautical Information Publication (AIP) (for foreign operations).
 2. These sources include CTAFs, Aeronautical Advisory Stations (UNICOM), Aeronautical Multicom Stations (MULTICOM), and Flight Service Stations (FSS).
 3. If an air TA source is also suitable for determining the status of airport services and facilities, it is the only source that needs to be listed in C080.

- c) The means by which runway lighting is controlled.
 - d) Whether the airport has published any information for non-standard traffic patterns.
 - e) The means by which a departing aircraft may obtain an ATC clearance on the ground.
 - f) If the departing aircraft cannot obtain ATC clearance on the ground, refer to OpSpec C077.
 - g) Pilots of arriving aircraft operating IFR should cancel their IFR flight plan as soon as it is safe to do so after landing. Pilots should manage their IFR clearance in accordance with OpSpec C077.
 - h) When airport services and facilities information is on a different frequency, both sources should be listed in C080. In cases where two sources are listed at the same airport, inspectors must ensure the operator's manuals have procedures that require pilots to continuously monitor and use the TA frequency when operating within 10 nautical miles (NM) of the airport. The procedures should require communication concerning airport services and facilities to be completed while more than 10 NM from the airport
 - i) At some airports, no public use frequencies may be available. In those cases, a certificate holder must arrange for radio communication of essential information including surveillance of local or transient aircraft operations by ground personnel. Ground personnel, who operate a company radio for airport status and traffic advisories, must be able to view airspace around the airport.
- 4) The facilities and services necessary to safely conduct IFR operations are available and operational at the time of the particular operation. For 14 CFR part 121 operations, the operator should also determine the availability, status, and coordination of emergency response for the airport Aircraft Rescue and Fire Fighting (ARFF) and if it is suitable for the aircraft.
- 5) OpSpec C080 may need to be issued to the certificate holder authorized scheduled passenger operations in order for C081 to be issued.

D. Title 14 CFR Part 125 Operators. C080 is not applicable for part 125 operators.

OPSPEC/MSPEC/LOA C081—SPECIAL INSTRUMENT AND RNAV VISUAL FLIGHT PROCEDURES.

A. Applicability. OpSpec/MSpec/LOA C081 authorizes special non-14 CFR part 97 instrument approach procedures (IAP) and departure procedures (DP). It also authorizes the use of special Standard Terminal Arrivals (STAR) and Area Navigation (RNAV) Visual Flight Procedure (RVFP) operations. C081 applies to all certificate holders (CH)/operators/program managers conducting airplane operations under 14 CFR parts 91 (including part 91K), 121, 121/135, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135. For

14 CFR part 129 foreign air carriers, the guidance for OpSpec C381 is in Volume 12, Chapter 4, Section 4.

B. Helicopter Authorization. Use OpSpec/MSpec/LOA H122 to issue a “special” to parts 91, 91K, 121/135, and 135 operators.

C. Responsibilities. The Flight Technologies and Procedures Division (AFS-400) provides policy, oversees approved procedure developers, and approves special instrument procedures and RVFPs that are authorized for specific CHs/program managers/operators by their Principal Operations Inspector (POI). The Flight Procedures and Airspace Group (AFS-420) will assist in the design, distribution, and coordination of special instrument procedures and RVFPs. POIs authorize the use of approved special instrument procedures and/or RVFPs via OpSpec/MSpec/LOA, as appropriate.

D. Program Tracking and Reporting Subsystem (PTRS) Activity Codes.

1) PTRS Activity Codes—Initial Issuance.

- Special Authorization: 1404.
- Approval of Special Navigation Procedures: 1410.
- Special Performance Authorizations: 1441.

2) PTRS Activity Codes—Future Actions or Surveillance.

- Surveillance Operator Facility: 1635.
- Surveillance Miscellaneous Executive Corporate Operator: 1682.
- Surveillance Miscellaneous 14 CFR Part 125 LODA Holder: 1683.

E. Background. Instrument Flight Procedures (IFP) not published in the Federal Register (FR) are identified as “special procedures.” Any instrument procedure serving a private-use, permission-required airport/heliport must be a special procedure. Special procedures may be developed to lower approach and/or departure minimums. Aircraft equipment/avionics, performance standards, and/or crew training may be used to mitigate factors that would require higher minimums. Specials may also require the use of landing aids, communications, or weather services not available for public use. For more information, refer to FAA Order 8260.60, Special Procedures.

F. Development of a New Special or RVFP. Refer to Order 8260.60 for developing a special instrument procedure or an RVFP.

1) Specials are typically developed and/or maintained by either an FAA-approved third party or by the FAA via a reimbursable agreement. The cost of the reimbursable agreement may be waived or reduced if the special is determined to be in the public’s interest. Development and approval will take 12 to 24 months or more in most cases.

2) RVFPs are developed by the operator with oversight by the FAA Flight Standards Service (FS).

G. Authorize an Approved Special or RVFP. The operator requesting the procedure must submit a written request, via the POI, to AFS-420. This request does not require a memo from the POI. AFS-420 will then provide the POI with the appropriate information.

NOTE: AFS-420, at their discretion, may inform the POI that AFS-420 concurrence is required. This concurrence is reserved for procedures with complex performance, equipment, and/or training requirements.

1) FAA 8260-Series Forms. AFS-420 will email the POI the appropriate 8260-series forms for each procedure. AFS-420 will include a form that defines the procedure for charting purposes and a form that describes any applicable operator requirements (if required). These forms are:

a) For new approaches, FAA Form 8260-7A, Special Instrument Approach Procedure, defines the procedure and FAA Form 8260-7B, Special Instrument Approach Procedure Authorization, defines the operator requirements, with FAA Form 8260-7B requiring POI and operator signatures.

b) For older approaches, FAA Form 8260-7 defines the procedure and FAA Form 8260-10, Standard Instrument Approach Procedure, defines the operator requirements, with FAA Form 8260-7 requiring POI and operator signatures.

c) For departures, FAA Form 8260-15A/B/C, Takeoff Minimums and Obstacle Departure Procedures (ODP)/Graphic Departure Procedures (DP)/Departure (Data Record), defines the procedure and FAA Form 8260-7B defines the operator requirements, with FAA Form 8260-7B requiring POI and operator signatures.

NOTE: Department of Defense (DOD) requests for specials will be managed by AFS-420. The group may supply the DOD with the appropriate forms. AFS-420 should maintain records and contact information so any revision or cancellation of the special may be disseminated to the DOD point of contact (POC).

2) Form Review and Distribution. The POI will provide the 8260-series forms to the operator.

a) POIs will review the operator's existing procedures, documentation, equipment, manuals, and training to ensure any requirements specific to the procedure, and listed on the 8260-series forms, are satisfactorily addressed. These requirements may require special aircraft performance, equipment, avionics/software, and/or crew training. If existing operator procedures do not address all requirements, the operator must submit a plan to the POI with the necessary changes needed to comply with the requirements of the special procedure. This plan must address any aircraft specific requirements for each make, model, and series (M/M/S) that they plan to use to fly the special. Once the implementation plan is accepted, the operator may receive the applicable signed forms needed to continue the process. Contact the Aircraft Evaluation Division (AED) (AFS-100) for aircraft-specific questions and AFS-420 for technical questions about special procedures and requirements. Ensure that the OpSpec/MSpec/LOA authorization includes an entry in the fourth column of Table 1 listing only the aircraft approved to fly the procedure(s). This ensures that any new aircraft added at a future date are not

inadvertently authorized without conducting the appropriate review. If the 8260-series forms or AFS-420 require a demonstration flight, see subparagraph G5) below.

b) POIs and the operator's representative will sign FAA Form 8260-7B after the POI has discussed the procedure requirements with the operator and the operator has provided the POI with documentation showing compliance with procedure requirements (i.e., aircraft performance, aircraft equipment, crew qualifications, etc.) or an implementation plan that shows a reasonable expectation that they will be able to safely meet all procedural requirements. If AFS-420 concurrence is required, AFS-420 may issue their concurrence to the POI by email or, upon request, a memo. (AFS-420 will determine if they want to maintain a record of their request for concurrence and their actual concurrence of the authorization in their files.) The POI will give a signed copy of FAA Form 8260-7B to the operator and maintain a signed copy in the office file. The POI will notify AFS-420 via email when the appropriate forms are signed and forward the forms, if requested by AFS-420. The group may determine if they will require a copy of the signed forms to be maintained in their files. These forms allow the operator to receive customized charts and navigation database coding (if applicable) from chart vendors and also training from most contract training vendors. It may take some time for the operator to fully implement their plan and qualify all relevant personnel to conduct the procedure(s). The OpSpec/MSpec/LOA must not be authorized until the operator has implemented their plan and is fully prepared to fly the procedure.

NOTE: Signing the back of FAA Form 8260-7B or 8260-7 is not the formal issuance of the authority for use of a special procedure. That is conveyed by the issuance of OpSpec/MSpec/LOA C081 or LOA C381.

c) If applicable, the Principal Maintenance Inspector (PMI) and Principal Avionics Inspector (PAI) should review the requirements contained in the procedure and affirm for the record (such as a PTRS record of review) that the aircraft type(s) in question can perform the procedure. Some special instrument procedures require nonstandard/higher missed approach climb gradients and specific qualities or levels of avionics.

3) Training. A CH/program manager's training program must include training on the procedure and equipment required to accomplish the procedure. An operator/company must be proficient on the procedure and the equipment required to accomplish the procedure. All FAA Form 8260-7B and 8260-10 training requirements must be met for all procedures. Training for specific procedures may be required if the performance, equipment, services, terrain effects, or a combination of factors is emphasized to ensure a safe operation. However, if the operator is seeking authorization for multiple specials or RVFPs, training for each specific procedure may not be required if the training is duplicative, the multiple specials are basic instrument approaches to a private-use landing area, and no additional performance or training requirements for a specific airfield are noted on the forms.

NOTE: For questions about training at 14 CFR part 142 training centers, contact the Training Center Program Manager (TCPM). The Air Transportation Division (AFS-200) is responsible for part 142 training center policy and guidance.

4) Charts. AFS-420 will send the POI the 8260-series forms previously described. The operator will use these forms to get a chart produced. The operator will submit a copy of the completed chart to the POI. Upon receipt, the POI will forward a copy of the chart to AFS-420 for distribution in accordance with Order 8260.60. The responsible Flight Standards office or the appropriate certificate management office (CMO) must not authorize operational implementation of the procedure until AFS-420 receives a copy of the chart. In some cases, a non-FAA developer will create a chart for the operator and submit it to AFS-420 for distribution. AFS-420 will distribute this chart to the POI who, in turn, will give it to the operator.

5) Demonstration Flights. The 8260-series forms may require a demonstration flight, or the POI and AFS-420 may require a demonstration flight, at their discretion, to verify the suitability of the operator's aircraft, equipment, procedures, and profiles, as described in the subparagraphs below.

a) **Special Pilot Qualification Airports—Part 121.** Part 121 air carriers are required to perform an in-flight demonstration of a new special IFP at a special pilot qualification airport. If an existing special IFP is amended, a demonstration flight may be required at the discretion of the POI and AFS-420 based on the changes to the procedure. OpSpec C050 is used to authorize part 121 air carrier CHs to conduct instrument flight rule (IFR) operations into special airports requiring special airport qualification and validation in accordance with the provisions and limitations of the OpSpec and part 121, § 121.445.

b) **Other Airports—Parts 91, 91K, 121, 125, 129, and 135.** If the airport served is not a special pilot qualification airport and a demonstration flight is not stipulated on FAA Form 8260-7B, a demonstration flight may still be required at the discretion of the POI and AFS-420 before an operator can use a new or amended special IFP. Flight simulator and tabletop reviews are other ways to confirm an operation can be conducted safely. The POI and AFS-420 should consider the operator's experience at that airport, profiles and procedures, aircraft capabilities, deviation from IFP criteria, and local environmental considerations (e.g., terrain, radar and communications coverage, and obstacles) when determining if a flight demonstration, simulator, or tabletop review is required.

c) **Requirements.** If the POI and AFS-420 require a demonstration flight, they must dictate the requirements and criteria for satisfactorily completing the demonstration. The POI may issue a provisional authorization allowing an operator to conduct a special IFP if an FAA Operations inspector is observing the flight to evaluate that procedure during routine operations in visual meteorological conditions (VMC). The provisional authorization should only be used after a careful evaluation has been made of the special IFP for safety-related factors. Issue this provisional authorization by adding the special IAP to the appropriate OpSpec/MSpec/LOA (C081 or LOA C381) with the provision that the authorization is only applicable to flights observed by an FAA Operations inspector in VMC.

6) Authorization. POIs will issue the approved procedure via OpSpec/MSpec/LOA C081 as described below. This will occur when the operator has implemented their plan to address all of the FAA 8260-series form requirements (including training, dispatch, equipment, performance, etc.), submitted a chart to the POI (and the POI has forwarded that chart to AFS-420), satisfactorily completed the demonstration flight (if required),

and AFS-420 concurs with the authorization (if required). Enter the aircraft M/M/S that have been found suitable in the “Airplane M/M/S” column of Table 1. The POI must review the specific FAA Form 8260-7B requirements (and obtain concurrence from AFS-420, if necessary) before authorizing any additional aircraft M/M/S and/or any aircraft that has modified its avionics package.

NOTE: The issuing authority for “special procedures” remains with the FAA. An operator who has been issued authority to use a special procedure will not authorize other operators to use the procedure. If additional users wish to be authorized, they must apply to use the procedure through their POIs and AFS-420.

a) AFS-420 will notify POIs of all approved operators when a special or RVFP is amended or canceled. This notification will typically include an effective date when the old procedure is canceled (if applicable), and an effective date when the new procedure is active. Procedure effective dates can be critical to flight safety. Procedures must not be used after the expired effective date. For example, some procedure amendments use the same fix names but with the fixes in a slightly different location, and those fix locations will change on the effective date, allowing the use of the expiring procedure until the effective date and the new procedure on and after the effective date. If the procedure has a specific effective date set by AFS-420, add a reference to that effective date in the “Limitations and Provisions” column of Table 1 for the new procedure as well as the expiring procedure (if applicable).

b) For new, amended, or canceled specials or RVFPs, the POI will issue the OpSpec/MSpec/LOA revision in accordance with this subparagraph within 30 days of AFS-420’s notification or by the effective date, whichever is later. If the POI/operator cannot meet this deadline, the POI must, at a minimum, remove the expiring procedure from the operator’s authorization by the effective date canceling that special or RVFP. To ensure that operators are using the correct, current procedure, the POI will enter the procedure amendment number (ORIG, 1, 2, etc.) as part of the procedure name in the second column of Table 1. POIs may also want to add a reference to that effective date in the “Limitations and Provisions” column of Table 1 for the new procedure. POIs will reference the cancellation date of the expiring procedure in the “Limitations and Provisions” column of Table 1 or remove the authorization for the expiring procedure (if applicable).

c) AFS-420 has the authority to rescind their concurrence with an operator authorization if the operator deviates from the procedure requirements, the group becomes aware of any additional operational/training requirements, or any other factors that affect the safe operation of the procedure become known. The POI must rescind authorization for use of a procedure immediately upon notification from AFS-420 in accordance with 14 CFR part 119, § 119.51.

H. Table 1 Instructions. When authorizing a special or RVFP, enter the airport identifier (International Civil Aviation Organization (ICAO)), city, airport name, state, full procedure name, airport state, airplane M/M/S, and any limitations and/or provisions in Table 1 as shown in the example below (Figure 3-67L, Sample C081 Table 1 – Authorized Airports, Procedures and Airplane). The Web-based Operations Safety System (WebOPSS) does not

provide dropdown fields for the instrument procedures to be listed in OpSpec/MSpec/LOA C081.

Figure 3-67L. Sample C081 Table 1 – Authorized Airports, Procedures and Airplanes

Airport Identifier (ICAO)	Procedure Name, ORIG or AMDT #	Airport State	Airplane M/M/S	Limitations and Provisions
KJFK; New York/John F. Kennedy Intl, NY	RNAV (RNP) RWY 13R, AMDT 2	NY	B737-800	
KJFK; New York/John F. Kennedy Intl, NY	RNAV Visual RWY 13R, AMDT 2	NY	All B767 All B757	
KRNO; Reno/Reno/Tahoe Intl, NV	ILS/DME RWY 16R, AMDT 3	NV	All A319 All B757	
KEGE, Eagle County Regional Airport, Eagle, CO	ILS or LOC/DME RWY 25, ORIG	CO	G550 G650	

1) Airport Identifier (ICAO). Select the airport using the ICAO airport identifier. The field will populate with the ICAO identifier, city, airport name, and state. Use the third column when accomplishing the state query.

2) Procedure Name. Use the procedure name found on FAA Form 8260-7 or 8260-7B to complete this block in the template. This will aid the WebOPSS query process. These procedures are subject to revision, so ensure that the amendment number (including ORIG for “original”) is included in the procedure name.

3) Airport State. List the airport state with the two-letter identifier. Added to aid the WebOPSS query.

4) Airplane M/M/S. List the airplanes that are approved to fly the special procedure. To authorize a new airplane to use a special that is already authorized for an existing airplane, contact AFS-420 for a joint review of the new aircraft’s capabilities. POIs should ask AFS-420 if concurrence is required to authorize any new airplane to fly these procedures.

5) Limitations and Provisions. For procedures that require specific review and evaluation of aircraft performance, equipment/avionics, training, or other criteria that would require that an authorization be limited to a specific airplane M/M/S, enter the limitation or provision after the approved M/M/S to ensure that any future airplane added by the operator is not authorized by default without completing the same review of the new airplane capabilities.

I. Additional Requirements. The following OpSpecs/MSpecs/LOAs may be required for the authorization of specific procedures for OpSpec C081 or LOA C381.

1) OpSpec/MSpec/LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. Parts 91K, 121, 121/135, 125

(including part 125 LODA holders), and 135 CHs/operators/program managers must be issued C052. The “type” (e.g., RNAV, instrument landing system (ILS), and localizer type directional aid (LDA)) of instrument approach listed in C081 in Table 1 must be listed in the table of authorized approaches in C052. RVFP and Required Navigation Performance Authorization Required (RNP AR) procedures will not be listed in C052.

2) OpSpec/MSpec/LOA C063, Area Navigation (RNAV) and Required Navigation Performance (RNP) Terminal Operations. Parts 91K, 121, 121/135, 125 (including part 125 LODA holders), and 135 CHs/operators/program managers may require a C063 authorization. C063 authorizes RNAV 1, RNP 1, and other Performance-based Navigation (PBN) flight operations, and is required for CHs/operators/program managers authorized to conduct RNAV 1, RNP 1, or other PBN flight operation in C081.

3) OpSpec/LOA C064, Terminal Area IFR Operations in Class G Airspace and at Airports Without an Operating Control Tower—Nonscheduled Passenger and All-Cargo Operations. Parts 121, 121/135, 125 (including part 125 LODA holders), and 135 CHs may require a C064 authorization. Determine the type of airport and operation being conducted in association with the C081 authorization.

4) OpSpec C077, Terminal Visual Flight Rules, Limitations, and Provisions. Parts 121, 121/135, and 135 CHs may require a C077 authorization. C077 provides arrival and departure guidance for instrument and visual flight operations (e.g., visual flight rule (VFR) departure on an IFR clearance). C077 provides guidance on the use of a charted visual flight procedure (CVFP). Determine if a VFR operation into or out of an airport is part of the C081 authorization.

5) OpSpec C080, Terminal Area IFR Operations in Class G Airspace and at Airports Without an Operating Control Tower for Scheduled Passenger Operations. Parts 121 and 121/135 CHs may require a C080 authorization. Determine the type of airport and operation being conducted in association with C081 authorization.

6) OpSpec/MSpec/LOA C384, Required Navigation Performance (RNP) Procedures With Authorization Required (AR). Parts 91, 91K, 121, 121/135, 125 (including part 125 LODA operators), and 135 CHs/operators/program managers should be authorized C384 when an RNP AR-like special procedure, normally titled RNAV (RNP), is authorized in C081. Approval to fly an RNP AR-like special without C384 will be granted by AFS-400 and documented on FAA Form 8260-7B. The authorization in C384 must contain the “lowest RNP” and “additional aircraft capabilities” meeting the requirements of the special procedure authorized in C081.

Figure 3-67M. Additional Authorizations for C081 Operators

NOTE: The table in this guidance is a graphical depiction of additional authorizations that are required, may be required, or not applicable.

Airplane						
	C052	C063	C064	C077	C080	C384
91	Optional	Optional	NA	NA	NA	*
91K	R	*	NA	NA	NA	*
121	R	*	*	*	*	*
121/135	R	*	*	*	*	*
135	R	*	*	*	*	*
125	R	*	*	NA	NA	*
125 LODA	R	*	*	NA	NA	*

R – Required

* – May Be Required

NA – Not Applicable

J. Amendments. AFS-420 will notify the POI of procedure amendments and send the POI all of the new forms required for the amendment. In most cases, this entire process will need to be reviewed to ensure operator compliance with the amended procedure requirements, and the operator will be required to get a new chart, which they must submit to the POI. The POI will forward the new chart to AFS-420 for distribution.

K. Cancellations. If an operator is no longer going to use a procedure, the POI must remove the procedure from the operator's OpSpec/MSpec/LOA and advise AFS-420 that the operator is no longer authorized to use that procedure. If the procedure is canceled, AFS-420 will notify the POI, and the POI will remove the procedure from the operator's OpSpec/MSpec/LOA.

L. Notices to Air Missions (NOTAM). Special procedures exist outside of the normal notification system for standard instrument procedures. Many special procedures serve landing areas that are in the public NOTAM system, and public NOTAMs will be issued for specials whenever possible. However, sometimes it is not possible to issue a NOTAM for a special, which requires updates and changes to be issued to all authorized operators through their POI. Therefore, it is critical to record, maintain, and update operator contact data with AFS-420.

M. Adding an Aircraft. If the operator requests to fly an authorized RVFP or special procedure in a new aircraft (e.g., one that they are not currently authorized to fly), the POI should review this entire process to ensure the suitability of the proposed aircraft.

N. Oversight and Auditing. Oversight management and guidance of operator authority and use of special instrument procedures is not currently in the FAA automated work programs. It may occur under the initiative of planned activities by POIs for those certificated operators who are addressed in National Work Programs for inspectors. POIs are requested to review the OpSpec/MSpec/LOA for their assigned operators annually to ensure the currency of the special instrument procedures. Part 91 operators are normally not addressed in the national programs. It

is therefore critical that this certification and approval process be tracked directly by the responsible Flight Standards office. That office should maintain files (paper/electronic, etc.) for operators authorized to conduct special procedures and conduct an annual review of the files to ensure that current information is maintained and disseminated.

1) The documentary elements of the special instrument procedure (e.g., the FAA 8260-series forms, a copy of the current chart as issued to the operator, and related correspondences) should be maintained in the responsible Flight Standards office's part 121, 125, 129, or 135 operator files. The responsible Flight Standards office should create and maintain a specific file for parts 91 and 91K operators that are authorized to use special IAPs.

2) AFS-420 must be supplied with a copy of the current chart and any subsequent updates or changes. At their discretion, AFS-420 may require a copy of the signed 8260-series forms. The POI should review the status of the special authority annually and advise AFS-420 of any changes (i.e., aircraft type, company's existence, etc.) The PMI and PAI should apply the same review to any aircraft changes that they did for the initial authority. A record of such review should be kept in the part 121 or 135 file.

3) AFS-420 will advise POIs of changes or updates to the procedures and distribute such information in accordance with FAA Order 8260.60.

O. Additional Information. LOA C381 allows inspectors in the responsible Flight Standards office and AFS-420 to authorize multiple part 91 pilots and operators to use special instrument procedures. This LOA is only applicable to part 91 operators, and is not required to be used in lieu of individual LOA C081 authorizations. AFS-420 will determine which procedures are applicable for LOA C381. All other special terminal instrument procedures issued to part 91 operators, including those procedures that require additional pilot training or specific equipment and/or aircraft performance requirements, must be authorized using LOA C081 for each operator on a case-by-case basis.

OPSPEC C085—14 CFR PART 97 NDB, NDB/DME, VOR, VOR/DME, AND TACAN INSTRUMENT APPROACH PROCEDURES USING SUBSTITUTE MEANS OF NAVIGATION.

A. Applicability. OpSpec C085 is applicable to all certificate holders conducting airplane operations under 14 CFR parts 121 and 135, including part 121/135 combination certificates. OpSpec C085 authorizes qualified certificate holders to substitute specific Area Navigation (RNAV) equipment for non-directional radio beacon (NDB), NDB/distance measuring equipment (DME), very high frequency omni-directional range station (VOR), VOR/DME, and Tactical Air Navigation System (TACAN) instrument approaches.

B. Operating Considerations. This authorization to conduct NDB, NDB/DME, VOR, VOR/DME, and TACAN instrument approach procedures (IAP) using substitute means of navigation applies when the underlying Navigational Aid (NAVAID) (NDB, VOR, DME, or TACAN) is out of service, and/or compatible aircraft avionics are neither installed (automatic direction finder (ADF), DME, or TACAN) nor operational (VOR, ADF, DME, or TACAN). Certificate holders must be authorized OpSpec C052 and authorized to fly Global Positioning

System (GPS) or RNAV (GPS) and/or RNAV (Global Navigation Satellite System (GNSS)) approaches. Certificate holders that are authorized OpSpec C384 also meet this requirement. The certificate holder must be authorized OpSpec C055 if planning to use RNAV substitution for planning purposes at an alternate airport for part 97 NDB, NDB/DME, VOR, VOR/DME, and TACAN IAPs. This includes the authorization to use airports with an unmonitored NAVAID as an alternate.

NOTE: Department of Defense (DOD) IAPs are considered equivalent to part 97 unless identified as “Not for Civil Use.”

C. Airplane Type and RNAV System. Table 1 of OpSpec C085 will list the airplane type by make, model, and series (M/M/S) and the RNAV system.

Figure 3-66F. Sample C085 Table 1 – Aircraft and Equipment Authorization

Aircraft M/M/S	RNAV System(s) and Software			Limitations and Provisions
	Manufacturer	Model	Software Part/Version	
B717-200	Honeywell	Pegasus	PS4081642-909	NDB, NDB/DME IAP N/A

D. Navigation Data and Flyability Validation. The certificate holder must establish a process to ensure that each IAP intended to be flown using OpSpec C085 has been checked to confirm flyability with the aircraft RNAV system. The structure of this process is left to the certificate holder’s discretion. The process must also ensure that any lateral path changes to an approach that occur during the 28-calendar-day update cycle are examined to confirm the flyability of the procedure. The flyability and validation must be documented.

E. Training. The flightcrew must complete the certificate holder’s approved training program, to include training specific to the RNAV system and software version and IAPs using substitute means of navigation.

OPSPEC C091—OPERATIONAL REQUIREMENTS AIRPLANE DESIGN GROUP VI (ICAO GROUP F). (OPTIONAL.)

A. Applicability. OpSpec C091 must be issued to U.S. certificate holders (CH) who conduct takeoff and landing operations using Airplane Design Group VI (ADG-VI), International Civil Aviation Organization (ICAO) Group F, within or outside the United States on runways as narrow as 150 feet (45 meters) wide.

B. Operational Requirements. OpSpec C091 specifies the runway width, Obstacle Free Zone (OFZ), and other airport requirements for these aircraft. ADG-VI are airplanes with a wingspan from 214 feet (65 meters) up to 262 feet (80 meters). It closely parallels ICAO Group F criteria. However, where the ICAO Code designation is also dependent on main gear track width, the FAA criteria is dependent on the wingspan of the aircraft and tail height. The current edition of Advisory Circular (AC) 150/5300-13, Airport Design, establishes airport requirements for the different ADGs, including runway width requirements, taxiway width

requirements, OFZ dimensions, and other airport considerations. Historically, the FAA has authorized deviations from these established standards on an air carrier-by-air carrier basis after evaluating the specific air carrier's operational procedures and flightcrew training program and standards. Operational limitations were typically part of the air carrier's operational authorization to operate as per the specific deviation granted to the air carrier.

NOTE: In order to allow ADG-VI aircraft operations on existing infrastructure, U.S. Airplane Design Group V (ADG-V) airports accepting scheduled service of ADG-VI aircraft are required to undergo a special Modification of Standards (MoS). The MoS applies to those portions of the airport that do not comply with ADG-VI standards.

C. U.S. CHs and Principal Operations Inspector (POI) Actions. Prior to initiating service to any ADG-V/ICAO Group E airport with an aircraft designed for ADG-VI/ICAO Group F, the CH must supply the POI with the following:

- Evidence that the requirements of OpSpec C091 are met for the proposed runway(s) of operations at those airports, including potential alternates.
- For destination airports, U.S. airport MoS approval for that make and model (e.g., A-380 or B747-8).
- For alternate airports, the process the operator used to evaluate the airport to ensure it could accommodate the aircraft.

1) It is the air carrier's responsibility to confirm that they can comply with the requirements of OpSpec C091 and to supply the POI sufficient documentation to verify their compliance. The air carrier is responsible for any necessary coordination and letters of understanding with applicable air traffic control (ATC) facilities and/or airport operators to meet the requirements of OpSpec C091 (e.g., taxi routes to be used and procedures to follow applicable to the specific CH).

2) Flightcrew and dispatch training and qualification program.

3) The POI should provide the air carrier, ATC facility, or airport operator support, as necessary, to comply with the requirements of OpSpec C091. PIs may find a list of airports with MoS, for the A-380 and B-747-8 at https://www.faa.gov/airports/engineering/nla_mos/.

NOTE: The air carrier's compliance with the requirements of OpSpec C091 eliminates the air carrier from having to demonstrate its capability to operate to the lower criteria specified in OpSpec C091 prior to being issued OpSpec C091 for that aircraft and airport combination.

D. ADG-VI/ICAO Group F Aircraft. ADG-VI/ICAO Group F specifies that the required runway width be at least 200 feet (60 meters) while ADG-V/ICAO Group E specifies that the runway width be at least 150 feet (45 meters). Currently, the A-380 and the B-747-8 are the only commercial aircraft in regular airline service that fit into the ADG-VI/ICAO Group F criteria and are therefore subject to the C091 requirements to takeoff and land on ADG-V/ICAO Group E runways.

E. B-747-8 Limitations. The following limitations apply to B-747-8 operations:

- 1) Runways for takeoffs and landings shall be at least 150 feet (45 meters) wide;
- 2) Operators must comply with all limitations and procedures specified in the applicable B-747-8 Airplane Flight Manual (AFM) for lightweight and aft center of gravity (CG) takeoffs.

NOTE: In accordance with FAA Airports Engineering Brief #74A, Use of 150-Foot (45-M) Wide Runways and Blast Pads for Boeing 747-8 Operations, the 35-foot standard stabilized runway shoulder width for ADG-V does not need to increase to the ADG-VI standard of 40 feet.

F. A-380 Limitations. The following limitations apply to A-380 operations:

1) The overall runway plus shoulder width is of 280 feet (85 meters) for ADG-VI and 250 feet (75 meters) for ICAO Group F. In order to reduce the jet blast impact to 150 feet (45 meters) runway surface, the FAA recommends stabilized shoulders beyond the runway edge. The FAA 150-foot runway width evaluation for the A-380, along with the recommendations for these operations contained in ICAO Annex 14, Aerodromes, and A-380 AFM have led to the following runway width authorization for A-380 operation in the United States:

2) Runways for takeoffs and landings shall be at least 150 feet (45 meters) wide with stabilized runway shoulders on both sides of the runway extending an additional 50 feet (15 meters) outward from the runway edge.

3) Runways as narrow as 150 feet (45 meters) wide without stabilized shoulders may be used for takeoff and landings, provided applicable flight manual procedures for takeoffs on 150-foot wide runways without stabilized runway shoulders are followed and procedures are implemented for the full length of the runway to be inspected for foreign object damage (FOD) after the takeoff prior to successive aircraft operations.

NOTE: Only the airport operator conducts runway inspections for FOD. Hence, the air carrier should make sure, or have some documentation, that the airport operator will do it. The document is the Federally required Airport Certification Manual under 14 CFR part 139.

4) The hold-short lines or hold position must be expanded outward from the 280-foot point by 1 foot for every 100 feet the runway threshold elevation is above sea level. (For example, a threshold elevation of 5,000 feet mean sea level (MSL) requires an additional 50 feet. Thus, the hold-short lines or hold position can be no closer than 330 feet (280 feet + 50 feet) from the runway centerline (RCL).

NOTE: This is to address the hold position of aircraft when an A-380 is on final approach and is as required per AC 150/5300-13. Specifically, so that if the A-380 has to go-around (balked landing) then the lateral area on both sides of the runway is clear of obstacles so that if the A-380 deviates left or right during the go-around maneuver (balked landing) its wing tips will not strike anything.

***TSPEC C175—CIRCLING APPROACH PROCEDURES (Continued from C075).** Use this TSpec when C075 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C075 and C175. If reaching 40 pages on C075 will result in a break, proceed to C175 before reaching 40 pages on C075.

***TSPEC C176—CIRCLING APPROACH PROCEDURES (Continued from C175).** Use this TSpec when C175 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C175 and C176. If reaching 40 pages on C175 will result in a break, proceed to C176 before reaching 40 pages on C175.

***TSPEC C177—CIRCLING APPROACH PROCEDURES (Continued from C176).** Use this TSpec when C176 has reached 40 pages. Do not allow a list of circling procedures for a specific flight simulation training device (FSTD) to break across C176 and C177. If reaching 40 pages on C176 will result in a break, proceed to C177 before reaching 40 pages on C176.

OPSPEC C300. DECOMMISSIONED. REPLACED BY OPSPEC C085.

OPSPEC/MSPEC/LOA C358—SPECIAL RESTRICTIONS FOR “RNP-LIKE” FOREIGN RNAV TERMINAL INSTRUMENT PROCEDURES WITH RNP LINES OF MINIMA.

NOTE: To obtain the nonstandard authorization C358, the operator must use the nonstandard request process. See Volume 3, Chapter 18, Section 2, paragraphs 3-712 to 3-713, for the nonstandard request process. For operators conducting operations under 14 CFR part 121 or 135, the formal request must be requested through the Air Transportation Division (AFS-200). For operators conducting operations under 14 CFR part 125, including part 125 Letter of Deviation Authority (LODA) holders, or under 14 CFR part 91K, the same nonstandard request process must be used and submitted through the General Aviation and Commercial Division (AFS-800). The airplane qualification package should be sent simultaneously to the Flight Technologies and Procedures Division (AFS-400) for evaluation. AFS-400 will coordinate with the appropriate policy division for final approval of this nonstandard authorization for all operator requests.

A. Nonstandard Authorization. The nonstandard template C358 authorizes a qualified operator to conduct certain “RNP-like” foreign Area Navigation (RNAV) Terminal Instrument Procedures (TERPS) with Required Navigation Performance (RNP) lines of minimums. These “RNP-like” foreign RNAV approaches are not designed to the same criteria as U.S. 14 CFR part 97 RNAV RNP special aircraft and aircrew required (SAAAR) procedures. Only the selectable procedures in Table 1 of the C358 template may be authorized. The International Civil Aviation Organization (ICAO) uses the term Authorization Required (AR) rather than SAAAR. AR may appear on “RNP-like” foreign RNAV procedures with RNP lines of minimums regardless of the design criteria.

NOTE: “RNP-like” foreign RNAV procedures with RNP minimums that meet part 97 RNAV RNP SAAAR procedure design criteria are not available for

selection in the C358 template, Table 1, and require authorization via the authorization of template C384.

- 1) C358 authorization is granted through the nonstandard authorization request process (see Volume 3, Chapter 18, Section 2).
- 2) C358 authorization is applicable to operators conducting operations under 14 CFR parts 91, 91K, 121, 125 (including those with a part 125 LODA), and 135.
- 3) Procedures with RNP lines of minimums. These “RNP-like” foreign RNAV procedures have RNP lines of minimums of 0.3 or less, and/or a Radius to Fix (RF) leg required, and/or the missed approach requiring an RNP less than 1.0. RNP less than 0.3 specified in the line of minimums (RNP line of minimums refers to the minimum altitude for the approach and has an RNP requirement associated with it; e.g., there may be minimums of 250 feet for RNP 0.11 and a separate line of minimum of 350 feet for RNP 0.20).
- 4) U.S. RNAV RNP SAAAR procedures are authorized (nonstandard template C384) using the guidance in the current edition of Advisory Circular (AC) 90-101, Approval Guidance for RNP Procedures with AR. The foreign “RNP-like” RNAV procedures in Table 1 are authorized using the portions of AC 90-101 that apply to the particular RNP procedure design criteria for each approach.

Figure 3-66A. Sample C358 Table 1 – Special Restrictions for “RNP-like” Foreign RNAV Terminal Instrument Procedures with RNP Lines of Minima

(Only those procedures allowed for authorization will be available as selectables in the C358 template.)

Airport	Procedure Identification	Procedure Requirements
<i>QUITO, Ecuador (SEQU-UIO)</i>	<i>/ RNAV (RNP) Rwy 17 / VNAV path required,</i>	<i>RF leg required, RNP 0.15, Missed approach RNP < 1.0</i>
<i>QUITO, Ecuador (SEQU-UIO)</i>	<i>/ RNAV (RNP) Rwy 35 / VNAV path required,</i>	<i>RF leg required, RNP 0.15, Missed approach RNP < 1.0</i>

B. Airplane Qualification. The airplane qualification must meet the guidelines established in AC 90-101, appendix 2, with the following exceptions:

- 1) Principal Operations Inspectors (POI) should send the formal nonstandard request to the responsible Flight Standards office stating that the airplane qualification and operating procedures have been sent to AFS-400 for evaluation. POIs should simultaneously submit the airplane qualification and operating procedures package to AFS-400, as described in the AC 90-101, appendix 7 checklist.
- 2) The vertical accuracy requirement as written in AC 90-101, appendix 2, subparagraph 2c is not required for this authorization. Vertical guidance in these foreign “RNP-like” procedure(s) is based on barometric vertical navigation (baro-VNAV). Eligible

aircraft are those with an Aircraft Flight Manual (AFM) or Aircraft Flight Manual Supplement (AFMS) that explicitly states that the vertical navigation (VNAV) system is approved for approach operations in accordance with the current edition of AC 20-138, Airworthiness Approval of Positioning and Navigation Systems, or those with written documentation (e.g., Flight Standardization Board (FSB) report or other official documentation) verifying eligibility.

3) Airspace Containment (AC 90-101, appendix 2, subparagraph 2d). The airspace containment requirement as written in AC 90-101 is not required for this authorization. Airplanes that are qualified to conduct RNAV operations in accordance with applicable directives and which have the proper RNAV capability (e.g., Global Positioning System (GPS), RF leg capability) for the procedure(s) listed may be authorized.

C. Operating Considerations. The operator must establish operating procedures that meet the applicable guidelines of AC 90-101, appendix 4. Operating procedures must incorporate all operational mitigations based on equipment authorization. For example, if RF leg is authorized, an operational mitigation is required if the equipment engages in “track hold” mode when a go-around is selected. (Track hold would not follow the lateral navigation (LNAV) path when a go-around is initiated in or shortly after an RF leg.) Submit the operating procedures package to AFS-400 as described in the AC 90-101 checklist in appendix 7. The operating procedures must meet the guidelines established in AC 90-101, appendix 4, with the following exceptions.

1) Vertical track deviation monitoring limit of 75 feet (AC 90-101). The track deviation monitoring limit of 75 feet vertically, as written in AC 90-101, is not required for this authorization. Eligible airplanes, in accordance with baro-VNAV requirements, must be equipped with and operationally using either a flight director (FD) or autopilot capable of following the Vertical Path (VPATH).

2) Verification of the most current airport altimeter is set prior to the final approach fix (FAF) but no earlier than the initial approach fix (IAF) (AC 90-101, appendix 4, subparagraph 3k). The altimeter setting requirement as written in AC 90-101 is not required for this authorization. Although the listed procedure(s) require(s) the current altimeter setting for the airport of intended landing, the flightcrew is not required to verify the setting between the IAF and the FAF. Normal flight deck procedures must meet this requirement.

D. Training. The flightcrew must complete the operator’s approved RNP instrument approach procedure (IAP) training program for these procedures and qualify for RNP instrument approach operations by one of the operator’s check pilots or by an FAA inspector. The guidance of AC 90-101, appendix 5, must be addressed in the training program.

1) For operators authorized RNP SAAAR instrument approaches for the aircraft equipment listed in Table 2 of the C358 authorization, only the specific differences from RNP SAAAR procedures that apply to the “RNP-like” foreign RNAV instrument procedures listed in Table 1 of the C358 authorization, must be trained.

2) Flightcrew members of operators that are not authorized for RNP SAAAR for the aircraft equipment listed in Table 2 of the C358 authorization, the applicable subjects of AC 90-101, appendix 5 must be trained:

3) Guidance of AC 90-101, appendix 5, must be followed except where a task analysis has shown that the crew knowledge and skills for RNP SAAAR do not apply to the “RNP-like” foreign RNAV instrument procedure(s) authorized in Table 1.

4) Unique RNP approach criteria that apply to the “RNP-like” foreign RNAV instrument procedure(s) authorized in Table 1.

E. Listing Airplanes and Navigation Systems Approved for “RNP-Like” Foreign RNAV TERPS. The airplane(s) and navigation systems approved for “RNP-like” foreign RNAV TERPS with RNP lines of minimums must be listed in Table 2 of the C358 authorization as follows:

- 1) The approved navigation systems and the specific software version must be listed.
- 2) The table must identify the authorized use of a coupled autopilot or an FD which is provided as a selectable in the Web-based Operations Safety System (WebOPSS) in processing the authorization.
- 3) The lowest RNP authorized must be listed.

Figure 3-66B. Sample C358 Table 2 – Airplanes and Navigation Systems Eligible for Foreign RNAV Terminal Instrument Procedures with RNP Lines of Minima

Airplane M/M/S	Navigation System M/M/Software/ Version	Limitations and Restrictions	Autopilot Coupled or Flight Director Required	Lowest RNP
B-737-490	Smiths FMCS/FMC 2907A4 or 2907C1 with U10.5A.	Not authorized to exceed temperature limits of the approach. Not authorized RNP parallel approach operations (RPA). Not authorized RNP parallel approach runway transitions (RPAT).	Either FD or Autopilot only	RNP-0.15 RNP-0.11

F. Execution of an “RNP-Like” Foreign RNAV Instrument Procedure. Execution of an “RNP-like” foreign RNAV instrument procedure requires the current, local altimeter setting for the airport of intended landing. Remote altimeter settings are not allowed.

G. VNAV Path Requirements. An airplane(s) with an airworthiness approval for baro-VNAV approach operations in accordance with AC 20-138 must be equipped with and operationally use either an FD or autopilot capable of following the VPATH.

H. Approval Requirements. Unlike RNP SAAAR C384 authorization, there is no interim approval required for this nonstandard authorization in C358. The operator must submit the following information on a continuous basis every 30 days to the POI for their evaluation of the continuing use of the authorization (refer to AC 90-101, appendix 6, paragraph 2):

- 1) Total number of the “RNP-like” foreign RNAV approach procedures conducted;
- 2) Number of satisfactory approaches by aircraft/system (satisfactory if completed as planned without any navigation or guidance system anomalies); and
- 3) Unsatisfactory approaches must be included in the report and must include, but are not limited to, the following:
 - a) UNABLE REQ NAV PERF, NAV ACCUR DOWNGRAD, or other RNP messages during any approach;
 - b) Excessive lateral or vertical deviation;
 - c) Terrain Awareness and Warning Systems (TAWS) warning;
 - d) Autopilot system disconnect;
 - e) Navigation data errors; and
 - f) Pilot report of any anomaly.

OPSPEC/MSPEC C359. DECOMMISSIONED.

LOA C381—SPECIAL NON-14 CFR PART 97 TERMINAL INSTRUMENT PROCEDURES.

A. Applicability. LOA C381 allows inspectors from the Flight Procedures and Airspace Group (AFS-420) and the responsible Flight Standards office to authorize multiple 14 CFR part 91 pilots and operators to use special non-14 CFR part 97 instrument procedures. AFS-420 will determine which procedures are applicable for LOA C381. LOA C381 should be used to maintain a list of multiple users (with written authorizations as described below) of special instrument procedures that do not require specific aircraft equipment, performance, pilot training, or any other complex requirements. LOA C081 is used to authorize all other special terminal instrument procedures. AFS-420 will create an operator in the Web-based Operations Safety System (WebOPSS) for digital signature authority. For LOA C381 applicable to 14 CFR part 129 foreign air carriers, see Volume 12, Chapter 4, Section 4.

NOTE: Currently there is no method to authorize a non-part 129 foreign pilot/operator to fly special instrument procedures or Area Navigation (RNAV)

Visual Flight Procedures (RVFP) due to tracking, notification, and coordination requirements.

B. Background. Part 91, § 91.175(a) states, “Instrument approaches to civil airports. Unless otherwise authorized by the FAA, when it is necessary to use an instrument approach to a civil airport, each person operating an aircraft must use a standard instrument approach procedure prescribed in part 97 of this chapter for that airport. This paragraph does not apply to United States military aircraft.”

1) A special terminal instrument procedure (approach or departure) serving a private-use airport or heliport is not promulgated under part 97, and therefore requires FAA authorization to conduct these procedures in instrument conditions in accordance with § 91.175(a). OpSpec/MSpec/LOA C081 normally authorizes special procedures under 14 CFR parts 91, 91K, 121, 125, and 135. OpSpec H122 authorizes 14 CFR parts 91, 91K, 121/135, and 135 helicopter operators. To ensure that all individual users are authorized to use these procedures, pilots/operators need to be authorized via LOAs to support pilot notification when a procedure is amended or canceled. All part 91 users can be authorized via LOA C081 by their responsible Flight Standards office, but this can create a greatly increased workload requiring a large number of FAA resources and work hours at air parks with dozens to hundreds of users.

2) LOA C381 was designed specifically to simplify the authorization process while still authorizing all individual users correctly, to address multiple part 91 operators flying one or more procedures. AFS-420 authorizes LOA C381 in WebOPSS, and the last page of the LOA is the signature page for the pilot and the FAA inspector, either an AFS-420 inspector or a responsible Flight Standards office Principal Operations Inspector (POI).

a) While LOA C381 allows an AFS-420 inspector or responsible Flight Standards office inspector to sign FAA Form 8260-7B, Special Instrument Approach Procedure Authorization, and the LOA C381 signature page, this is primarily for the sake of flexibility. The responsible Flight Standards office has the primary responsibility to authorize pilots via these signature pages. AFS-420 and the responsible Flight Standards office should work together, particularly during site visits where multiple pilots are anticipated to apply for this authorization.

b) However, LOA C381 should be flexible enough to allow either an AFS-420 inspector or a responsible Flight Standards office inspector to authorize a pilot without inspectors from both offices being present. With the concurrence of the responsible Flight Standards office, an AFS-420 inspector may authorize users, if necessary, due to scheduling or staffing issues (e.g., if a responsible Flight Standards office inspector cannot be present). In these instances, AFS-420 will ensure that the responsible Flight Standards office receives the required paperwork for their records.

3) LOA C381 (including the signature page) and appropriate 8260-series forms (see subparagraph 5) below) serve as the pilot/operator authorization. One or more approaches in the geographic area can be added to Table 1, and each authorized user for each approach can be added to Table 2 and authorized for individual (or multiple) procedures by referencing Table 1. Although a complete LOA C381 is required for AFS-420 and responsible Flight Standards offices to ensure proper pilot authorizations, the LOA issued to the pilot must only contain, at a

minimum, the approach authorized in Table 1, the pilot's name and information in Table 2, and the completed signature page. It is not necessary to send a new copy of LOA C381 with a complete list of all approaches and all pilots to every authorized pilot for every LOA C381 revision. An individual pilot needs to be reissued LOA C381 only when there is a change to a procedure that pilot is authorized to fly, or there is a change in that pilot's authorization.

4) There are several special terminal instrument procedures serving private-use, multiple-user, general aviation airports (such as air parks) throughout the United States. Many of these procedures have been around for more than 10 years. Previously, FAA Form 8260-7 defined the procedure and was used by the Flight Technologies and Procedures Division (AFS-400) to authorize the procedure. FAA Form 8260-7 has since been updated to FAA Form 8260-7A, Special Instrument Approach Procedure, (which defines the procedure) and FAA Form 8260-7B (which defines any additional operator requirements). Several procedures are still authorized by an approved FAA Form 8260-7, and will remain this way until the procedure is amended or canceled.

5) To authorize a user via LOA C381, the pilot completes and signs the bottom half of the last page of the LOA C381 and FAA Form 8260-7B, page 2. An FAA inspector, either an AFS-420 inspector or a responsible Flight Standards office inspector, signs the top half and FAA Form 8260-7B, page 2. The responsible Flight Standards office keeps the signed originals, and gives a copy to the pilot and to AFS-420. The pilot copy is their proof of authorization. AFS-420 adds the pilot to Table 2 of LOA C381 and reauthorizes LOA C381 in WebOPSS. AFS-420 is responsible for updating and authorizing LOA C381 in WebOPSS, including adding pilots and procedures to the tables. The LOA C381 issued to the pilot/operator must contain at least the authorized procedure(s) in Table 1, the authorized pilot with applicable information in Table 2, and the signed original signature page. It is not necessary for all procedures in the geographic area to be listed in Table 1, or all pilots authorized to be listed in Table 2, but the applicable procedure(s) and pilot are required.

6) It is important to note that LOA C381 in WebOPSS only serves as a blanket authorization and a tracking method, and is signed in WebOPSS by AFS-420. LOA C381 does not have to be reissued to each listed pilot each time a change is made, but it does need to be reauthorized when one or more pilots is added, removed, or amended in the LOA. The only time a pilot needs to be reauthorized is when that pilot is authorized for a new procedure, or when an authorized procedure is amended.

C. Authorization Forms and Records.

1) As it applies to a pilot/operator, the following signed forms serve as their authorization:

a) FAA 8260-series forms: FAA Form 8260-7A (FAA Form 8260-7 for older procedures) containing the specifications of the instrument approach procedures (IAP); FAA Form 8260-7B for issuing the instrument procedure; and FAA Form 8260-15A, Takeoff Minimums and Obstacle Departure Procedures (ODP) (FAA Form 8260-15B, Graphic Departure Procedures (DP), for graphic ODP or Standard Instrument Departure (SID)).

b) LOA C381, signed by both the pilot and an FAA inspector, and including the authorized procedure(s) in Table 1 and the authorized pilot in Table 2.

2) The responsible Flight Standards office relevant to the pilot maintains the signed original of the forms listed in subparagraph 1) above, and sends a copy to AFS-420.

3) AFS-420 maintains a copy of the signed forms listed in subparagraph 1) above.

D. Authorization Responsibilities. Due to multiple operators using these special instrument procedures, the following measures outlined below are required to ensure regulatory compliance and limit potential risk.

1) For each procedure, the airport manager or their designee must:

a) Maintain a list of pilots authorized for each procedure, including contact information.

b) For a new procedure or a procedure amendment, where it may be beneficial, arrange a meeting or site visit for the responsible Flight Standards office and AFS-420 to authorize multiple users, and notify all pilots seeking authorization.

c) Notify all pilots/operators requesting to fly any special terminal instrument procedure that they must contact either their responsible Flight Standards office or AFS-420.

d) Using FAA Form 8260-7A (or FAA Form 8260-7 for older procedures) and FAA Form 8260-15A/B, have an aeronautical chart produced suitable for flight deck use.

e) Distribute the appropriate special terminal instrument procedure charts only to pilots/operators that are authorized by the Flight Standards Service (FS). This authorization is verified by presenting the signed FAA Form 8260-7B and the signed LOA C381.

2) AFS-420 must:

a) Establish an Executive Operator in WebOPSS to authorize LOA C381, which will contain the list of all pilots/operators authorized to conduct the listed procedures.

b) Verify and enter all pilot/operator information in WebOPSS, and issue LOA C381 to reflect the procedures as listed in Table 1 of the LOA. See Figure 3-67K for an example.

Figure 3-67K. Sample C381 Table 1 – Airports and Special Terminal Instrument Procedures

Ref. No.	Airport Identifier (ICAO)	Special Terminal Instrument Procedures	Airport State
1	82IS; Landings Condominium; Huntley, IL	VOR-A, AMDT 6 Takeoff Minimums and Obstacle Departure Procedure, ORIG	IL
2	LL22; Brookeridge Air Park; Downers Grove, IL	VOR/DME or GPS-A, AMDT 1	IL

c) Prepare a pilot briefing sheet for each special terminal instrument procedure.

d) Forward a copy of the pilot briefing sheet, FAA Forms 8260-7/8260-7A/8260-7B/8260-15A/8260-15B, and any other required documentation to the POI for each procedure.

e) With the concurrence of the responsible Flight Standards office in accordance with Volume 3, Chapter 18, Section 2, subparagraph 3-714B2), AFS-420 will authorize users via the process outlined in subparagraph 3) below, if necessary, due to scheduling or staffing issues (e.g., if a responsible Flight Standards office inspector cannot be present). In these instances, AFS-420 will ensure that the responsible Flight Standards office receives the required paperwork for their records.

f) Save either a hard copy or an electronic copy of each signed pilot authorization and signed FAA Form 8260-7B.

3) The responsible Flight Standards office inspector must:

a) Verify the pilot's identity and credentials (pilot certificate/instrument rating/aviation medical).

b) Review FAA Form 8260-7B for required signatures and any associated documents to ensure accuracy.

c) Emphasize to pilots/operators that the special terminal instrument procedures conform to current requirements and that only authorized pilots/operators are permitted to utilize these procedures.

d) Ensure the pilot/operator understands that no additional training is required to conduct these procedures. If additional training is required, that procedure must be authorized via individual OpSpec/MSpec/LOA in accordance with current FAA Order 8900.1 guidance.

e) Sign an original and make at least two copies of the signed LOA C381 and signed FAA Form 8260-7B and distribute as follows:

1. Original: Responsible Flight Standards office.
2. Copy: Pilot/Operator.
3. Copy: AFS-420.

NOTE: The pilot/operator is required to have a copy of the applicable FAA Form 8260-7B in order to have an approach chart and ODP issued for their use.

- f) Notify AFS-420 of any change in assigned POI.
 - g) Ensure the pilot/operator understands the original issued IAP charts are authorized for their use only. Photocopying this IAP chart is not authorized.
- 4) The pilot/operator must:
- a) Maintain current point of contact (POC) information with the airport manager.
 - b) Prior to being issued LOA C381 and FAA Form 8260-7B, present the following documents to the FAA in person:
 1. FAA pilot certificate,
 2. FAA medical certificate, and
 3. U.S. passport or other government-issued photo identification.
 - c) Ensure their signature is on FAA Form 8260-7B.
 - d) Present the signed FAA Form 8260-7B to the airport manager in order to obtain special terminal instrument procedure chart(s).
 - e) Sign the LOA and confirm the signatures for AFS-420 and the responsible Flight Standards office.
 - f) Have the LOA in physical possession, or readily accessible, when exercising the privileges of the LOA.

NOTE: Each owner/operator/pilot in command (PIC) is responsible for currency and proficiency of instrument flight rules (IFR) and an airworthy aircraft.

- g) Return the LOA and the issued special charts when the LOA is no longer required.

OPSPEC/MSPEC/LOA C384—REQUIRED NAVIGATION PERFORMANCE PROCEDURES WITH AUTHORIZATION REQUIRED.

A. OpSpec/MSpec/LOA C384 Nonstandard Authorization. The nonstandard template C384 authorizes qualified operators to conduct 14 CFR part 97 Area Navigation (RNAV)

Required Navigation Performance (RNP) instrument approach procedures (IAP) with Authorization Required (AR). This template also authorizes foreign RNP IAPs with AR.

1) OpSpec/MSpec/LOA C384 authorization covered by this paragraph applies to operators conducting operations under 14 CFR parts 91 (including part 91 subpart K (part 91K)), 121, 121/135, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135.

2) Complete operational approval guidance material for RNP IAPs with AR is found in the current edition of Advisory Circular (AC) 90-101, Approval Guidance for RNP Procedures with AR. The AC also includes application preparation and processing guidance.

3) Before a principal operations inspector (POI) may issue nonstandard OpSpec/MSpec/LOA C384, the Flight Technologies and Procedures Division (AFS-400) and either the Air Transportation Division (AFS-200) or the General Aviation and Commercial Division (AFS-800), as appropriate, must concur with the POI's recommendation to issue the OpSpec/MSpec/LOA.

4) Figure 3-67E, RNP AR Application Flowchart, illustrates the preferred flow for reviewing RNP AR applications within the FAA. Volume 3, Chapter 1, Section 1 describes the recommended general process to be used by Flight Standards Service (AFS) inspectors in the course of evaluating an operator's request for operational approval. Nothing in this C384-specific guidance is intended to contradict the recommended general process.

a) The POI would typically be the first FAA official to receive and review the application. The POI would provide feedback to the operator, as needed, to produce an application that meets the requirements of AC 90-101. The POI would then submit his or her recommendation for approval to the regional Next Generation (NextGen) Branch (e.g., AEA-220).

NOTE: Volume 3, Chapter 1, Section 1 instructs the inspector to upload an electronic version of the RNP AR application to the NextGen application tracking SharePoint site associated with his or her region. The inspector should notify the regional All Weather Operations (AWO) specialist (within the NextGen Branch) and the Performance Based Flight System Branch (AFS-470) when the application has been uploaded. This will allow the AWO specialist and AFS-470 personnel to concurrently review the application and save time in the overall process. The POI, AWO specialist, and AFS-470 representatives should collaborate on the application review and thereby avoid duplication of effort in resolving any issues with the application.

b) The AWO specialist will review the application and, if necessary, seek additional information or clarification from the operator through the POI. Upon completion of the AWO specialist's review, the regional NextGen Branch manager should forward his or her recommendation, and that of the POI, to AFS-400.

c) AFS-400 will review the application in consultation with AFS-200 or AFS-800, as appropriate. Upon completion of this review, the coordinating offices will jointly provide written concurrence with the POI and AWO specialist recommendations to approve the

application. The headquarters (HQ) concurrence memo will be sent to the POI through the regional NextGen Branch manager.

NOTE: If AFS-200, AFS-400, or AFS-800 does not concur with the recommendations to approve the application, they will provide a memo stating the reasons for this position.

d) The POI will issue the OpSpec/MSpec/LOA C384 to the operator in accordance with the limitations and/or provisions stipulated in the HQ concurrence memo. The HQ memo will, at a minimum, stipulate the specific aircraft make, model, and series (M/M/S), the lowest RNP value authorized, the related flight management system (FMS) software version, and whether the operator is authorized to fly Radius to Fix (RF) legs and/or approaches requiring less than RNP 1.0 nautical mile (NM) on the Missed Approach Segment (MAS) (i.e., “additional aircraft capabilities”).

5) A listing of foreign RNP AR procedures approved for U.S. operators is maintained on the AFS-470 website. In addition, each approved foreign RNP AR procedure is added to the C384 template as a selectable item in Table 2. Operators may have any of those approved foreign procedures added to OpSpec/MSpec/LOA C384, Table 2 at the time C384 is issued, or at a later date, by requesting such action of their POI. No additional application process, or HQ approval, is required. The AFS-470 website also includes any limitations or restrictions associated with the foreign RNP AR procedures. Should the inspector have any questions regarding the suitability of an operator for any foreign RNP AR approach procedure, he or she should contact AFS-470.

NOTE: The AFS-470 website may be found at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/rnp.

6) If an operator wants a new (i.e., not currently approved) foreign RNP AR approach to be added to the approved list, they must send a separate application package to the POI. That application package must include a letter of request, the applicable state’s Aeronautical Information Publication (AIP) (in English), and the applicable procedure charts. The POI should forward the package, along with his or her recommendations, to AFS-400 via the regional NextGen Branch. AFS-400 will evaluate the foreign RNP AR procedure and determine whether it is suitable for U.S. operators’ use.

NOTE: The response to this specific request will likely be provided via separate means following completion of the procedure review process described in Figure 3-67E and, if approved, would result in the foreign RNP AR procedure being added to the C384 template and the foreign procedures list on the AFS-470 website.

B. OpSpec/MSpec/LOA C384 Tables 1 and 2. The POI should complete Table 1 and, if applicable, Table 2 of OpSpec/MSpec/LOA C384 in accordance with the following guidelines.

1) Table 1 should reflect the complete M/M/S of the aircraft qualified for RNP AR operations, as provided in the HQ concurrence memo. Table 1 should also fully identify the

navigation system (FMS) make and model, as well as software version(s). The HQ memo will also stipulate this information.

2) Table 1 should list any limitations specifically addressed in the HQ memo, as well as any limitations identified by the POI. Table 1 should indicate the lowest permissible RNP value for both flight director (FD)-only and autopilot operations, as provided in the HQ concurrence memo. The inspector should also select, in Table 1, those additional aircraft capabilities specifically identified in the HQ memo. See Figure 3-66C, Sample C384 Table 1—Aircraft and Navigation Systems Eligible for RNP Procedures with AR, for a sample OpSpec/MSpec/LOA C384, Table 1.

NOTE: The POI must ordinarily obtain HQ concurrence before making changes to the contents of Table 1, unless specifically authorized in the HQ RNP AR concurrence memo. For example, the inspector would need HQ concurrence prior to adding aircraft or amending the FMS software version unless the associated manufacturer documentation indicates the change/revision has no effect on RNP AR operations. Alternatively, the inspector would not need HQ concurrence prior to amending the “lowest RNP” value if the HQ concurrence memo authorized a lower RNP value at the end of a specified period or upon the operator’s completion of a number of RNP AR approaches.

3) Table 2 is used to name the specific foreign RNP AR approaches and any associated limitations for which the individual operator is authorized to fly. All foreign RNP AR procedures approved for U.S. operators will be available for selection within the C384 template. The operator should identify for the POI which foreign RNP AR procedures they want listed in Table 2 of their C384. See Figure 3-66D, Sample C384 Table 2—Foreign Approaches Authorized for RNP AR Operations, for a sample OpSpec/MSpec/LOA C384, Table 2.

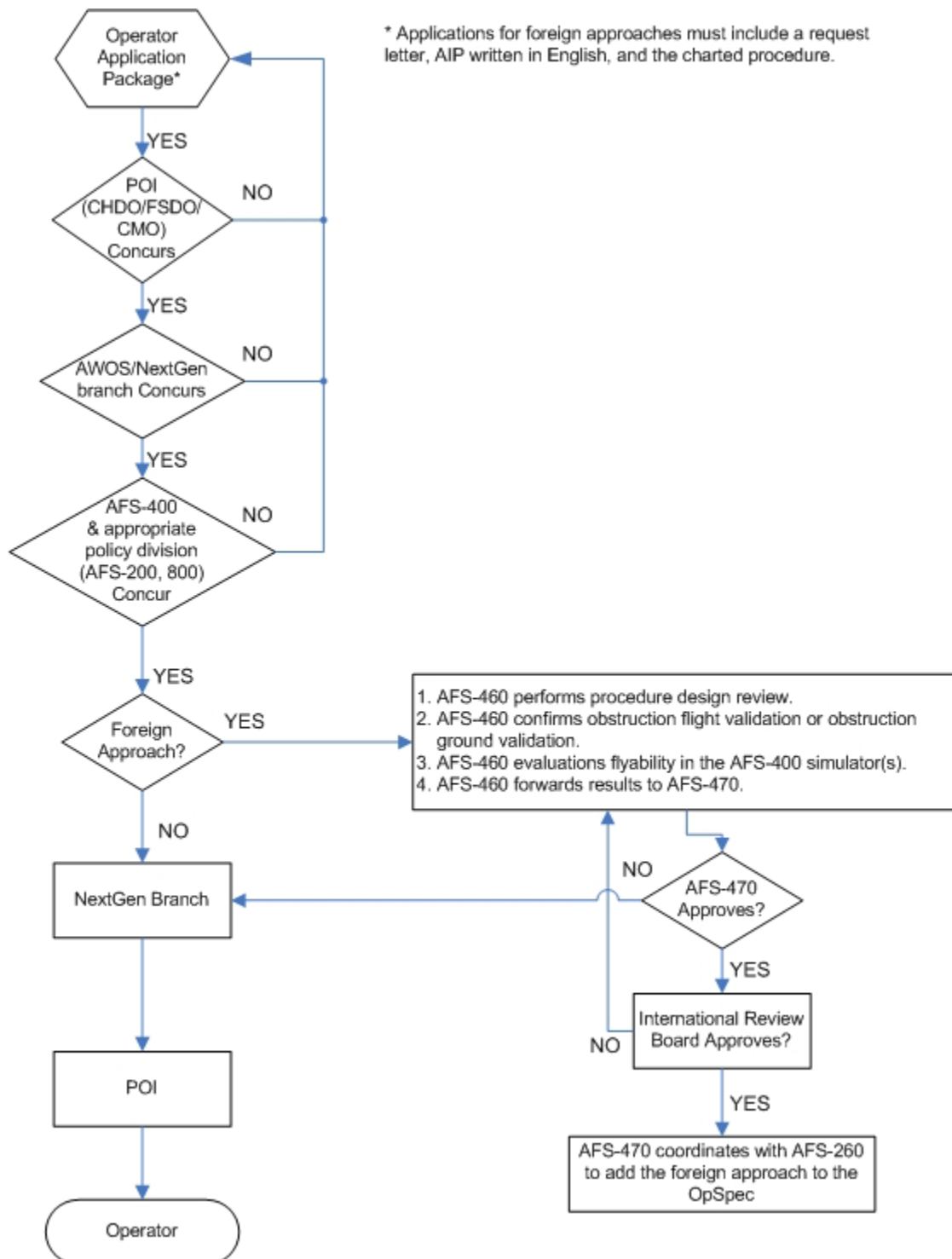
Figure 3-66C. Sample C384 Table 1 – Aircraft and Navigation Systems Eligible for RNP Procedures with AR

Aircraft M/M/S	Navigation System M/M/Software Version	Limitations	Lowest RNP	Additional Aircraft Capabilities
B-737-700/800	GE Aerospace FMC (2), p/n 171497-05-01, U 10.8A	None	With flight director: RNP .15 With autopilot: RNP .11	1) RF legs. 2) Missed approach requiring less than RNP 1.0.

Figure 3-66D. Sample C384 Table 2 – Foreign Approaches Authorized for RNP AR Operations

Approach Name/Identifier	Special Limitations
Tegucigalpa, Honduras (MHTG) RNAV RNP 02	Flightcrews must coordinate missed approach holding instructions with ATC prior to commencing the approach.

Figure 3-67E. RNP AR Application Flowchart



RESERVED. Paragraphs 3-872 through 3-920.