

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

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National Policy

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Cancellation Date: 4/16/13

SUBJ: OpSpec/MSpec/LOA C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH)

1. Purpose of This Notice. This notice provides changes to operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) C073 and provides for the implementation of guidance for operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), and 135.

2. Audience. The primary audience for this notice is certificate-holding district offices (CHDO), Flight Standards District Offices (FSDO), certificate management offices (CMO), aviation safety inspectors (ASI), and principal inspectors (PI). The secondary audience includes Flight Standards Service (AFS) divisions and branches in the regions and in headquarters (HQ).

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

4. Background. OpSpec/MSpec/LOA C073 was published to authorize certificate holders/operators/program managers to conduct instrument approach procedures (IAP) other than instrument landing system (ILS), microwave landing system (MLS), or Global Positioning System (GPS) landing system (GLS), utilizing a visibility and a decision altitude (DA)/decision height (DH) equal to the published visibility and minimum descent altitude (MDA). The revision to OpSpec/MSpec/LOA C073 includes:

- A title change to reflect the authorization given;
- The removal of Table 2 and the authorization to do self-obstacle assessments; and
- An update to the description of the FAA obstacle assessment, along with an update to the requirements for 14 CFR part 97 IAPs to qualify for the authorization.

5. Guidance. The Flight Technologies and Procedures Division (AFS-400) developed this notice. This notice contains the following:

- Sample OpSpec C073 template in Appendix A, which applies to part 121.
- Sample OpSpec C073 template in Appendix B, which applies to part 125.
- Sample OpSpec C073 template in Appendix C, which applies to part 135.
- Sample OpSpec C073 template in Appendix D, which applies to part 121/135.
- Sample LOA C073 template in Appendix E, which applies to part 125 LODA holders.
- Sample MSpec MC073 template in Appendix F, which applies to part 91K.

6. Action. PIs should review their certificate holder's/operator's/program manager's OpSpecs/MSpecs/LOAs and reissue OpSpec/LOA C073 or MSpec MC073, if appropriate. Appendix G contains a job aid for use in determining if the certificate holder/operator/program manager has met all requirements prior to issuance of OpSpec/MSpec/LOA C073. This is a mandatory template change with a compliance date of 180 days from the date of this notice.

7. Disposition. We will incorporate the information in this notice into FAA Order 8900.1 before this notice expires. Direct questions or comments concerning this notice to the Performance Based Flight Systems Branch (AFS-470) at 202-385-4623.

John d. Drion for

John M. Allen Director, Flight Standards Service

Appendix A. Sample OpSpec C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 121

a. The certificate holder is authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on a Nonprecision Approach (NPA). C073 will be used in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The certificate holder is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1.

Table 1—Authorized Aircraft and Equipment

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

b. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

c. <u>Authorized Approaches.</u> The certificate holder may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(a) Has the exact published final approach course as the RNAV IAP.

(b) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(c) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

(2) Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and—

(a) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(b) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(c) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

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(b) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

d. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

e. <u>Operational Restriction</u>. An MDA may not be used as a DA/DH if the requirements specified in this operations specification are not met. The certificate holder may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

f. <u>Required Training</u>. Flightcrews must be trained in accordance with the certificate holder's approved training program for the navigation system and instrument procedure being used before conducting any operations authorized by this operations specification.

Appendix B. Sample OpSpec C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 125

a. The certificate holder is authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on a Nonprecision Approach (NPA). C073 will be used in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The certificate holder is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1 below.

Table 1—Authorized Aircraft and Equipment

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

b. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

c. <u>Authorized Approaches.</u> The certificate holder may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(a) Has the exact published final approach course as the RNAV IAP.

(b) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(c) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

(2) Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and—

(a) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(b) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(c) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

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(b) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

d. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

e. <u>Operational Restriction</u>. An MDA may not be used as a DA/DH if the requirements specified in this operations specification are not met. The certificate holder may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

f. <u>Required Training</u>. Flightcrews must be trained in accordance with the certificate holder's training program for the navigation system and instrument procedure being used before conducting any operations authorized by this operations specification.

Appendix C. Sample OpSpec C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 135

a. The certificate holder is authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on a Nonprecision Approach (NPA). C073 will be used in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The certificate holder is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1 below.

Table 1—Authorized Aircraft and Equipment

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

b. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

c. <u>Authorized Approaches.</u> The certificate holder may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(a) Has the exact published final approach course as the RNAV IAP.

(b) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(c) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

(2) Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and—

(a) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(b) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(c) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

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(b) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

d. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

e. <u>Operational Restriction</u>. An MDA may not be used as a DA/DH if the requirements specified in this operations specification are not met. The certificate holder may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

f. <u>Required Training</u>. Flightcrews must be trained in accordance with the certificate holder's approved training program for the navigation system and instrument procedure being used before conducting any operations authorized by this operations specification.

Appendix D. Sample OpSpec C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 121/135

a. The certificate holder is authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on a Nonprecision Approach (NPA). C073 will be used in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The certificate holder is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1 below.

Table 1—Authorized Aircraft and Equipment

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

b. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

c. <u>Authorized Approaches.</u> The certificate holder may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(a) Has the exact published final approach course as the RNAV IAP.

(b) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(c) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

(2) Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and—

(a) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(b) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(c) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

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(b) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

d. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

e. <u>Operational Restriction</u>. An MDA may not be used as a DA/DH if the requirements specified in this operations specification are not met. The certificate holder may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

f. <u>Required Training</u>. Flightcrews must be trained in accordance with the certificate holder's approved training program for the navigation system and instrument procedure being used before conducting any operations authorized by this operations specification.

Appendix E. Sample LOA C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 125 (LODA)

Letter of Authorization

1. The Operator/Company, authorized to conduct operations in accordance with the Letter of Deviation (LODA), is authorized to conduct operations using minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on Nonprecision Approaches (NPA). C073 will be used in conjunction with letter of authorization C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The Operator/Company must be authorized C052 in order to be authorized C073. The Operator/Company is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1 below.

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

2. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

3. <u>Authorized Approaches.</u> The Operator/Company may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

a. Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(1) Has the exact published final approach course as the RNAV IAP.

(2) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(3) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

b. Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and-

(1) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(2) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

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c. Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

(1) The GS or VDA on the published final approach course must be coincident with or higher than the GS on the VASI or PAPI.

(2) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

4. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

5. <u>Operational Restriction</u>. An MDA may not be used as a DA/DH if the requirements specified in this letter of authorization are not met. The Operator/Company may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

6. <u>Required Training</u>. The Operator/Company must be proficient with the navigation system and instrument procedure being used before conducting any operations authorized by this letter of authorization.

Appendix F. Sample MSpec MC073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH): 14 CFR Part 91K

a. The program manager is authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV) on a Nonprecision Approach (NPA). MC073 will be used in conjunction with management specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. The program manager is authorized to conduct instrument approach operations using the following aircraft and Area Navigation (RNAV) systems certified for these VNAV operations as listed in Table 1 below.

Table 1—Authorized Aircraft and Equipment

Airplane Type (M/M/S)	Area Navigation System (Model/Version)	Remarks

b. <u>Public Vertically Guided Instrument Approach Procedure (IAP) Assessment.</u> Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and have been accomplished on 14 CFR part 97 IAPs with a published DA/DH. These approaches conform to the U.S. standard for Terminal Instrument Procedures (TERPS) and include ILS, MLS, LPV, RNP AR, and some RNAV (GPS) IAPs.

c. <u>Authorized Approaches.</u> The program manager may fly all part 97 nonprecision straight-in IAPs listed as authorized in their C052, Table 1, columns 1 and 2 using an MDA as a DA/DH if the approach being flown meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(a) Has the exact published final approach course as the RNAV IAP.

(b) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(c) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

(2) Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and-

(a) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(b) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(c) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system.

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(b) The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

d. <u>VNAV Path Angle.</u> The VNAV path angle must be greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft.

e. <u>Operational Restriction.</u> An MDA may not be used as a DA/DH if the requirements specified in this management specification are not met. The program manager may use a continuous descent final approach (CDFA), but will begin the missed approach at an altitude above the MDA that will not allow the aircraft to descend below the MDA.

f. <u>Required Training</u>. Flightcrews must be trained in accordance with the program manager's approved training program for the navigation system and instrument procedure being used before conducting any operations authorized by this management specification.

Appendix G. Job Aid for OpSpec/MSpec/LOA C073

OpSpec/MSpec/LOA C073 will be used in conjunction with OpSpec/MSpec/LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima. C073 is applicable to all certificate holders/operators/program managers conducting airplane operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (including part 125 Letter of Deviation (LODA) holders), and 135. C073 specifies the airplane type and area navigation (RNAV) system authorized to use minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) with vertical navigation (VNAV). In order for C073 to be issued, the following questions should all be answered "Yes."

		Yes	No
1.	Is certificate holder/operator/program manager authorized C052?		
2.	Is the navigation equipment certified for VNAV operations?		

a. Is the equipment certified in accordance with the current edition of FAA Advisory Circular (AC) 20-138, Airworthiness Approval of Positioning and Navigation Systems, through a type certificate (TC), amended TC, Supplemental Type Certificate (STC), amended STC, or other FAA equivalent approval? Must be established by one of the following:

- A statement in the FAA-approved Aircraft Flight Manual (AFM) showing the aircraft is equipped with a VNAV system certified in accordance with AC 20-138.
- A statement in the FAA-approved AFM or Flight Manual Supplement referencing the approval for RNP.
- Aircraft with an AFM Aircraft authorization for RNP-0.3 or less.
- AEG verification that the applicant's aircraft and Flight Manual Supplement meet AC 20-138 criteria for VNAV operations. This may replace the requirement for a FAA-approved AFM statement or an applicable Flight Standardization Board (FSB) Report.

b. Can the certificate holder/operator/program manager provide documentation proving that airworthiness maintenance practices and procedures are being accomplished?

c. Is the certificate holder/operator/program manager reviewing and revising the MEL, as necessary, to address any pertinent VNAV or FMS operating requirements?

3. Did the certificate holder/operator/program manager review the 14 CFR part 97 instrument approach procedure (IAP) to ensure it meets the proper requirements?

a. Serves a runway that has a published RNAV IAP ("RNAV" or "GPS" in title) with a published LNAV/VNAV DA/DH and—

(1) Has the exact published final approach course as the RNAV IAP.

UNCONTROLLED COPY WHEN DOWNLOADED Check with FSIMS to verify current version before using (2) Has a published glideslope (GS) or vertical descent angle (VDA) coincident with or higher than the GS on the published RNAV IAP.

(3) Is selected from a certified database and displays a final approach Flight Path Angle (FPA) that matches the GS or VDA on the published IAP to be flown.

b. Serves a runway that has a published ILS, MLS, LPV, or RNP AR IAP and-

(1) Has the exact published final approach course as the ILS, MLS, LPV, or RNP AR IAP.

(2) Has a published GS or VDA coincident with or higher than the GS on the published ILS, MLS, LPV, or RNP AR IAP.

(3) Is selected from a certified database and displays a final approach FPA that matches the GS or VDA on the published IAP to be flown.

4. Serves a runway to an airport operating under 14 CFR part 139 with a Visual Approach Slope Indicator (VASI) or precision approach path indicator (PAPI) vertical visual guidance system?

a. The GS or VDA on the published final approach course must be coincident with or higher than the GS on the VASI or PAPI.

b. The published final approach course is within plus or minus 10 degrees of the runway centerline course or within the lateral restriction from the runway centerline course placed on the VASI or PAPI, whichever is less. This restriction will be published in the Airport/Facility Directory.

5. Does the 14 CFR part 97 nonprecision straight-in IAP meet approach design requirements?

a. Is the approach listed in C052, column 1 or 2?

b. Is the IAP published with a GS or VDA in the profile view?

c. Is the VNAV path angle greater than 2.75 and less than 3.77 degrees for Category A, B, and C aircraft, and greater than 2.75 and less than 3.50 degrees for Category D aircraft?

6. Is the IAP retrievable from a certified database?

a. Does the final approach flight path angle on the procedure selected from the database match the published GS or VDA on the published IAP?

b. Can the RNAV system fly the LNAV/VNAV procedures as published?

16/12

7. Does the certificate holder/operator/program manager have an approved training program or proficiency with the navigation system and instrument procedure being used before conducting any operations?

a. Does the training include using required systems and VNAV to fly an approach down to an MDA as a DA/DH?

8. Was the correct information added to C073, Table 1?

a. Was the certificate holder/operator/program manager authorized to conduct instrument approach operations using the aircraft and Area Navigation (RNAV) systems added in C073, Table 1?

9. Has the authorization to use C073 been properly distributed?

a. Was OpSpec C073 issued to a part 121, 125, or 135 operator?

b. Was an LOA issued to a part 125 (LODA) holder operating under a deviation from the certificate and OpSpec requirement for part 125?

c. Was an MSpec issued to a part 91K operator?

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