

# NOTICE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

N 8900.248

National Policy

Effective Date:  
12/11/13

Cancellation Date:  
12/11/14

**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)

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**1. Purpose of This Notice.** This notice provides changes to operations specification (OpSpec)/management specification (MSpec)/letter of authorization (LOA) C073, Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH), and provides for the implementation of guidance for operations under 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.

**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](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](http://www.faa.gov/regulations_policies/orders_notices).

**4. Background.** The FAA published OpSpec/MSpec/LOA C073 on April 16, 2012 to authorize certificate holders/operators/program managers to use the minimum descent altitude (MDA) as a decision altitude (DA)/decision height (DH) on Nonprecision Approaches (NPA) using vertical navigation (VNAV). The FAA delayed the implementation date until November 30, 2013 to provide corrections and additional data to the guidance and templates. The revision to OpSpec/MSpec/LOA C073 includes:

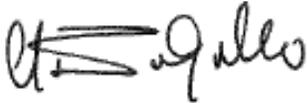
- Updated advisory circulars (AC) that can be used to determine certification;
- Changes to the authorized approach criteria; and
- The addition of part 91, to include template.

**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 LOA C073 template in Appendix F, which applies to part 91.
- Sample MSPEC MC073 template in Appendix G, which applies to part 91K.

**6. Action.** PIs should review their certificate holder/operator/program manager's OpSpecs/MSpecs/LOAs and reissue OpSpec/LOA C073 or MSPEC MC073, if appropriate. Appendix H 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 Barbagallo  
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). Certificate holders will use C073 in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. 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 meets one of the following requirements and its subcomponents:

(1) Serves a runway that has a published RNAV IAP (“RNAV (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 degrees from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 degrees from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNA/VNAV approaches using baro-VNAV. Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. Certificate holders will not use an MDA 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. Required Training. 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). Certificate holders will use C073 in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. 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 (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders approved C073, using AC 20-129 criteria, may continue C073 operations.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. Certificate holders will not use an MDA 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. Required Training. 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). Certificate holders will use C073 in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. 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 (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. Certificate holders will not use an MDA 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. Required Training. 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 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). Certificate holders will use C073 in conjunction with operations specification C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. 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 (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. Certificate holders will not use an MDA 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. Required Training. 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 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**

a. The Operator/Company, authorized to conduct operations in accordance with the Letter of Deviation Authority (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). The Operator/Company will use letter of authorization C073 in conjunction with LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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.

**Table 1—Authorized Aircraft and Equipment**

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

b. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. 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:

(1) Serves a runway that has a published RNAV IAP (“RNAV (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Operators/companies currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Operators/companies currently approved C073, using AC 20-129 criteria, may continue C073 operations.

- d. VNAV Path Angle. 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/E aircraft.
- e. Operational Restriction. The Operator/Company will not use an MDA as a DA/DH if the requirements specified in this LOA 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.
- f. Required Training. The Operator/Company must be proficient with the navigation system and instrument procedure being used before conducting any operations authorized by this LOA.

**Appendix F. 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 91**

**Letter of Authorization**

a. The operator 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). The operator 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath Qualification Surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), RNAV Global Positioning System (GPS), IAPs with a localizer performance with vertical guidance (LPV) DA, and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. The operator may fly all part 97 nonprecision straight-in IAPs that the operator is approved for 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 (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all step-down fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. The operator will not use an MDA as a DA/DH if the requirements specified in this LOA are not met. The operator 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. Required Training. The operator must be proficient with the navigation system and instrument procedure being used before conducting any operations authorized by this LOA.

**Appendix G. 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). The program manager will use MC073 in conjunction with management specification MC052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports. 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. Public Vertically Guided Instrument Approach Procedure (IAP) Assessment. Obstacle clearance surface (OCS) assessments protect the instrument procedure, including the missed approach. Glidepath qualification surface (GQS) assessments protect the landing area and are 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 instrument landing system (ILS), Ground Based Augmentation System (GBAS) Landing System (GLS), RNAV Required Navigation Performance (RNP), and RNAV Global Positioning System (GPS) IAPs with a localizer performance with vertical guidance (LPV) DA and/or lateral navigation (LNAV)/VNAV DA.

**Note:** The use of MDA as a DA/DH does not ensure obstacle clearance from the MDA to the landing runway. Operators must see and avoid obstacles between the MDA and the runway when 14 CFR part 91, § 91.175 requirements are met and the approach is continued below the MDA for landing.

c. Authorized Approaches. The program manager may fly all part 97 nonprecision straight-in IAPs listed as authorized in their MC052, 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 (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published LNAV/VNAV or RNP DA, and:

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

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

1 A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV and/or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the flight management system (FMS) displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using barometric vertical navigation (baro-VNAV). Program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(2) Serves a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

(a) Has the exact published final approach course as the ILS, GLS, or RNAV IAP.

(b) Has a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP.

1 A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS. The VNAV path must be at or above all stepdown fixes.

2 A published VDA is not required when using LNAV minima on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

(c) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations.

(3) Serves a runway to an airport operating under 14 CFR part 139 with a Visual Glide Slope Indicator (VGSI).

(a) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

(b) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

d. VNAV Path Angle. 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/E aircraft.

e. Operational Restriction. The program manager will not use an MDA 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. Required Training. 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 H. Job Aid for OpSpec/MSpec/LOA C073

Operations specification/management specification/letter of authorization C073 is used in conjunction with OpSpec/MSpec/LOA C052, Straight-In Non-Precision, APV, and Category I Precision Approach and Landing Minima—All Airports (not applicable to part 91 operators). Paragraph C073 is applicable to all certificate holders/operators/program managers conducting airplane operations under 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. 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 be answered “Yes.”

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 1. Is certificate holder/operator/program manager authorized C052?<br>(Not applicable to part 91 operators)   | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the navigation equipment approved for VNAV operations?  | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>a. Is the equipment certified in accordance with FAA Advisory Circular (AC) 20-129, Airworthiness Approval of Vertical Navigation (VNAV) Systems for use in the U.S, National Airspace System (NAS) and Alaska, or the current edition of AC 20-138 (revision A and later), 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? It must be established by one of the following:</p> <ul style="list-style-type: none"> <li>• A statement in the FAA-approved Airplane Flight Manual (AFM) showing the aircraft is equipped with an VNAV system certified in accordance with AC 20-129 or AC 20-138 (revision A and later).</li> <li>• Aircraft Evaluation Group (AEG) verification that the applicant’s aircraft and flight management system (FMS) meets AC 20-129 or AC 20-138 (revision A and later), or equivalent, criteria for VNAV operations. This may replace the requirement for a suitable FAA-approved AFM statement or an applicable Flight Standardization Board (FSB) report.</li> </ul> |                          |                          |
| <p>b. Can the certificate holder/operator/program manager provide documentation proving that airworthiness maintenance practices and procedures are being accomplished?</p>   |                          |                          |
| <p>c. Is the certificate holder/operator/program manager reviewing and revising the minimum equipment list (MEL), as necessary, to address any pertinent VNAV or FMS operating requirements?</p>  |                          |                          |

Yes No

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. Does the approach serve a runway that has a published RNAV IAP (“RNAV (GPS),” “RNAV (RNP),” or “GPS” in the title) with a published lateral navigation (LNAV)/VNAV or RNP DA, and:

- 1) Has the exact published final approach course as the RNAV IAP.
- 2) Has a published VDA coincident with or higher than the barometric vertical guidance (glideslope (GS)) on the published RNAV IAP.

**Note:** A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published localizer performance with vertical guidance (LPV) or LNAV/VNAV DA. Use the published GS. The VNAV path must be at or above all stepdown fixes.

3) Is selected from an approved and current database and the FMS displays a final approach Flight Path Angle (FPA) in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. This applies to systems that display the FPA in tenths or hundredths. See examples below.

- For FPAs displayed in tenths, 3.1 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.14. 3.2 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.20.
- For FPAs displayed in hundredths, 3.10 may be displayed if the FMS FPA does not match the published IAP with a VDA or GS of 3.10 to 3.14. 3.20 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.20..

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders/operators/program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations. This will not be applicable for part 91 operators due to new authorization.

b. Does the approach serve a runway that has a published ILS, GLS, or RNAV IAP with LPV minima, and:

- 1) Have the exact published final approach course as the ILS, GLS, or RNAV IAP?
- 2) Have a published VDA coincident with or higher than the electronic GS on the published ILS, GLS, or RNAV IAP?

- A published VDA is not required on a LOC-only approach when the ILS GS is out of service. Use the published GS.
- A published VDA is not required when using the LNAV minima line on an RNAV approach that has a published LPV or LNAV/VNAV DA. Use the published GS.

3) Is selected from an approved and current database and the FMS displays a final approach FPA in tenths or hundredths. The displayed FPA may have a maximum difference of minus .04 from the IAP VDA or GS. The displayed FPA may always be rounded up to the next tenth. The range for a given FPA will be 2.9 to 3.0, 3.1 to 3.2, 3.2 to 3.3, 4.0 to 4.1, etc. See examples below.

- For FPAs displayed in tenths, 3.1 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.14. 3.2 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.20.
- For FMS FPAs displayed in hundredths, 3.10 may be displayed if the FMS FPA does not match the published IAP with a VDA or GS of 3.10 to 3.14. An FPA of 3.20 may be displayed for a published IAP with a VDA or GS of 3.10 to 3.20.

**Note:** Aircraft without an FMS FPA display meeting previous AC 20-129 criteria may have been approved for LNAV/VNAV approaches using baro-VNAV. Certificate holders/operators/program managers currently approved C073, using AC 20-129 criteria, may continue C073 operations. This will not be applicable for part 91 operators due to new authorization.

c. Does the approach serve a runway to an airport operating under 14 CFR part 139, Certification of Airports, with a Visual Glide Slope Indicator (VGSI)?

1) The VDA or GS on the published final approach course must be coincident with or higher than the published VGSI descent angle.

2) The published final approach course is within plus or minus 4 degrees of the runway centerline (RCL) course.

Yes No

4. Does the part 97 nonprecision straight-in IAP meet approach design requirements?

a. Is the approach listed in C052, column 1 or 2 (not applicable to part 91)?

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

c. Is the VNAV path angle must 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/E aircraft?

1) Is a steeper path authorized by the Flight Technologies and Procedures Division (AFS 400)?

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 5. Is the IAP retrievable from an approved and current database?  | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Does the final approach FPA on the procedure selected from the database meet the requirements listed in Authorized Approaches?   |                          |                          |
| 6. 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? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Was the correct information added to C073, Table 1?  | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Was the certificate holder/operator/program manager authorized aircraft type and RNAV system added to C073, Table 1?   |                          |                          |
| 8. Has the authorization to use C073 been properly issued?  | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Was operations specification C073 issued to a part 121, 125, or 135 operator?  |                          |                          |
| b. Was an LOA issued to a part 91 or 125 (LODA) holder, operating under a deviation from the certificate and operation specification requirement for part 125?  |                          |                          |
| c. Was a management specification issued to a part 91K operator?  |                          |                          |