

## U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

N 8900.252

**National Policy** 

Effective Date: 2/3/14

Cancellation Date: 2/3/15

SUBJ: OpSpec/LOA C071, Autopilot Minimum Use Altitudes/Heights (MUH)

- 1. Purpose of this Notice. This document provides notification of changes to operation specification (OpSpec) and letter of authorization (LOA) C071 and implementation of guidance for operations under Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 125 (including 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), principal inspectors (PI), and aviation safety inspectors (ASI). 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. The public can find this notice at http://www.faa.gov/regulations\_policies/orders\_notices.
- **4. Background.** OpSpec/LOA C071, Autopilot Engagement After Takeoff and During Initial Climb for Auto Flight Guidance System (AFGS), was published to authorize certificate holders/operators to engage the autopilot at an altitude lower than 500 feet after takeoff. OpSpec/LOA C071 is being revised to reflect new autopilot rules and updated in the following ways:
  - The title is changing to OpSpec/LOA C071, Autopilot Minimum Use Altitudes/Heights (MUH) to reflect the authorization given;
  - Table 1 will list the aircraft and equipment approved for the authorized MUH and the approved MUH for all phases of flight;
  - Information on MUH and the certification requirements for publication.
- **5. Guidance.** The Flight Technologies and Procedures Division (AFS-400) developed this notice. This notice contains the following:
  - Sample OpSpec C071 template in Appendix A, which applies to part 121.
  - Sample OpSpec C071 template in Appendix B, which applies to part 125.

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- Sample OpSpec C071 template in Appendix C, which applies to part 135.
- Sample OpSpec C071 template in Appendix D, which applies to part 121/135.
- Sample LOA C071 template in Appendix E, which applies to part 125 LODA holders.
- **6. Action.** PIs should review their certificate holder's or operator's OpSpecs and LOAs and reissue OpSpec and LOA C071. This authorization is mandatory for certificate holders/operators currently issued OpSpec/LOA C071.
- a. Limitations and Provisions. Certificate holders/operators who want to operate an autopilot below 500 feet above ground level (AGL) must also be issued OpSpec/LOA C071. OpSpec/LOA C071 does not replace or override OpSpec/LOA C059, Category (CAT) II Instrument Approach and Landing Operations (Optional: 14 CFR Parts 121, 125, 125M and 135) and Special Authorization CAT I Instrument Approach and Landing Operations, OpSpec/LOA C060, CAT III Instrument Approach and Landing Operations, and OpSpec C061, Flight Control Guidance Systems for Automatic Landing Operations Other Than Categories II and III.
- **b. Applicability and Compliance.** Autopilot MUHs in OpSpec/LOA C071 are applicable to parts 121, 125 (including 125 LODA) holders), and 135. The compliance date will be 120 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 your questions or comments concerning this notice to the Performance Based Flight Systems Branch, AFS-470, at 202-385-4702.

John Barbagallo

Acting Director, Flight Standards Service

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2/3/14 N 8900.252 Appendix A

# Appendix A. Sample OpSpec C071, Autopilot Minimum Use Altitudes/Heights (MUH): 14 CFR Part 121

- a. The certificate holder is authorized to use autopilot minimum use altitudes/heights (MUHs) in accordance with 14 CFR part 121, § 121.579 and the limitations and provisions of this operations specification.
- b. <u>Approved Airplanes and Equipment.</u> The certificate holder is authorized to operate with the approved airplanes and autopilot systems listed in Table 1at the associated MUHs. Airplanes with the same M/M/S, but equipped with a different autopilot model/version must be listed separately.
- c. <u>MUHs.</u> Takeoff/initial climb and go-around/missed approach altitudes/heights are minimum engagement altitudes/heights. Enroute and Approach MUHs are autopilot disengage altitudes/heights. These altitudes/heights must be listed in Table 1 for each individual phase of flight. The altitudes/heights listed in Table 1 are above airport elevation, terrain or touchdown zone elevation (TDZE) unless associated with a DA/H or MDA. If a height is not specified in the Airplane Flight Manual (AFM), AFM Supplement or designated by the Administrator, a minimum altitude/height will be indicated in Table 1. These are: Takeoff/Initial Climb; 500ft., Enroute; 500 ft., and Approach; MDA/DA/H minus 50 ft. An altitude/height determined by the Administrator will be annotated with the acronym FAA next to the number (e.g., 150 ft. (FAA)).

Table 1. Approved Airplanes, Equipment and MUHs

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

- d. <u>Limitations and Provisions.</u> Operations specification C071 does not replace or override operations specifications C059, C060, or C061.
- (1) Operations. The certificate holder must not engage the autopilot unless the autopilot system is fully operational. The certificate holder must conduct operations in accordance with the airworthiness certification of the autopilot system.
  - (2) Airworthiness. The certificate holder must maintain the airplanes and equipment listed in Table 1.
- e. <u>Required Training.</u> The flightcrew must have successfully completed training on the equipment and instrument approach procedures (IAP) to be used.

2/3/14 N 8900.252 Appendix B

## Appendix B. Sample OpSpec C071, Autopilot Minimum Use Altitudes/Heights (MUH): 14 CFR Part 125

- a. The certificate holder is authorized to use autopilot minimum use altitudes/heights (MUHs) in accordance with 14 CFR part 125, § 125.329 and the limitations and provisions of this operations specification.
- b. <u>Approved Airplanes and Equipment.</u> The certificate holder is authorized to operate with the approved airplanes and autopilot systems listed in Table 1at the associated MUHs. Airplanes with the same M/M/S, but equipped with a different autopilot model/version must be listed separately.
- c. <u>MUHs.</u> Takeoff/initial climb and go-around/missed approach altitudes/heights are minimum engagement altitudes/heights. Enroute and Approach MUHs are autopilot disengage altitudes/heights. These altitudes/heights must be listed in Table 1 for each individual phase of flight. The altitudes/heights listed in Table 1 are above airport elevation, terrain or touchdown zone elevation (TDZE) unless associated with a DA/H or MDA. If a height is not specified in the Airplane Flight Manual (AFM), AFM Supplement or designated by the Administrator, a minimum altitude/height will be indicated in Table 1. These are: Takeoff/Initial Climb; 500ft., Enroute; 500 ft., and Approach; MDA/DA/H minus 50 ft. An altitude/height determined by the Administrator will be annotated with the acronym FAA next to the number (e.g., 150 ft. (FAA)).

Table 1. Approved Airplanes, Equipment and MUHs

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

- d. <u>Limitations and Provisions</u>. Operations specification C071 does not replace or override operations specifications C059, C060, or C061.
- (1) Operations. The certificate holder must not engage the autopilot unless the autopilot system is fully operational. The certificate holder must conduct operations in accordance with the airworthiness certification of the autopilot system.
  - (2) Airworthiness. The certificate holder must maintain the airplanes and equipment listed in Table 1.
- e. <u>Required Training.</u> The flightcrew must have successfully completed training on the equipment and instrument approach procedures (IAP) to be used.

2/3/14 N 8900.252 Appendix C

# Appendix C. Sample OpSpec C071, Autopilot Minimum Use Altitudes/Heights (MUH): 14 CFR Part 135

- a. The certificate holder is authorized to use autopilot minimum use altitudes/heights (MUHs) in accordance with 14 CFR part 135, § 135.93 and the limitations and provisions of this operations specification.
- b. <u>Approved Airplanes and Equipment.</u> The certificate holder is authorized to operate with the approved airplanes and autopilot systems listed in Table 1at the associated MUHs. Airplanes with the same M/M/S, but equipped with a different autopilot model/version must be listed separately.
- c. <u>MUHs.</u> Takeoff/initial climb and go-around/missed approach altitudes/heights are minimum engagement altitudes/heights. Enroute and Approach MUHs are autopilot disengage altitudes/heights. These altitudes/heights must be listed in Table 1 for each individual phase of flight. The altitudes/heights listed in Table 1 are above airport elevation, terrain or touchdown zone elevation (TDZE) unless associated with a DA/H or MDA. If a height is not specified in the Airplane Flight Manual (AFM), AFM Supplement or designated by the Administrator, a minimum altitude/height will be indicated in Table 1. These are: Takeoff/Initial Climb; 500ft., Enroute; 500 ft., and Approach; MDA/DA/H minus 50 ft. An altitude/height determined by the Administrator will be annotated with the acronym FAA next to the number (e.g., 150 ft. (FAA)).

Table 1. Approved Airplanes, Equipment and MUHs

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

- d. <u>Limitations and Provisions.</u> Operations specification C071 does not replace or override operations specifications C059, C060, or C061.
- (1) Operations. The certificate holder must not engage the autopilot unless the autopilot system is fully operational. The certificate holder must conduct operations in accordance with the airworthiness certification of the autopilot system.
  - (2) Airworthiness. The certificate holder must maintain the airplanes and equipment listed in Table 1.
- e. <u>Required Training.</u> The flightcrew must have successfully completed the certificate holder's approved training program curriculum on the equipment and instrument approach procedures (IAP) to be used.

2/3/14 N 8900.252 Appendix D

# Appendix D. Sample OpSpec C071, Autopilot Minimum Use Altitudes/Heights (MUH): 14 CFR Part 121/135

- a. The certificate holder is authorized to use autopilot minimum use altitudes/heights (MUH) in accordance with 14 CFR part 121, § 121.579 or part 135, §135.93, as applicable, and the limitations and provisions of this operations specification.
- b. <u>Approved Airplanes and Equipment.</u> The certificate holder is authorized to operate with the approved airplanes and autopilot systems listed in Table 1at the associated MUHs. Airplanes with the same M/M/S, but equipped with a different autopilot model/version must be listed separately.
- c. <u>MUHs.</u> Takeoff/initial climb and go-around/missed approach altitudes/heights are minimum engagement altitudes/heights. Enroute and Approach MUHs are autopilot disengage altitudes/heights. These altitudes/heights must be listed in Table 1 for each individual phase of flight. The altitudes/heights listed in Table 1 are above airport elevation, terrain or touchdown zone elevation (TDZE) unless associated with a DA/H or MDA. If a height is not specified in the Airplane Flight Manual (AFM), AFM Supplement or designated by the Administrator, a minimum altitude/height will be indicated in Table 1. These are: Takeoff/Initial Climb; 500ft., Enroute; 500 ft., and Approach; MDA/DA/H minus 50 ft. An altitude/height determined by the Administrator will be annotated with the acronym FAA next to the number (e.g., 150 ft. (FAA)).

Table 1. Approved Airplanes, Equipment and MUHs

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

- d. <u>Limitations and Provisions.</u> Operations specification C071 does not replace or override operations specifications C059, C060, or C061.
- (1) Operations. The certificate holder must not engage the autopilot unless the autopilot system is fully operational. The certificate holder must conduct operations in accordance with the airworthiness certification of the autopilot system.
  - (2) Airworthiness. The certificate holder must maintain the airplanes and equipment listed in Table 1.
- e. <u>Required Training.</u> The flightcrew must have successfully completed the certificate holder's approved training program curriculum on the equipment and instrument approach procedures (IAP) to be used.

2/3/14 N 8900.252 Appendix E

## Appendix E. Sample LOA C071, Autopilot Minimum Use Altitudes/Heights (MUH): 14 CFR Part 125 (LODA)

- 1. The operator/company authorized to conduct operations in accordance with the Letter of Deviation Authority (LODA A125), is authorized to use autopilot minimum use altitudes/heights (MUHs) in accordance with 14 CFR part 125, §125.329 and the limitations and provisions of this Letter of Authority (LOA).
- 2. <u>Approved Airplanes and Equipment.</u> The operator/company is authorized to operate with the approved airplanes and autopilot systems listed in Table 1at the associated MUHs. Airplanes with the same M/M/S, but equipped with a different autopilot model/version must be listed separately.
- 3. <u>MUHs.</u> Takeoff/initial climb and go-around/missed approach altitudes/heights are minimum engagement altitudes/heights. Enroute and Approach MUHs are autopilot disengage altitudes/heights. These altitudes/heights must be listed in Table 1 for each individual phase of flight. The altitudes/heights listed in Table 1 are above airport elevation, terrain or touchdown zone elevation (TDZE) unless associated with a DA/H or MDA. If a height is not specified in the Airplane Flight Manual (AFM), AFM Supplement or designated by the Administrator, a minimum altitude/height will be indicated in Table 1. These are: Takeoff/Initial Climb; 500ft., Enroute; 500 ft., and Approach; MDA/DA/H minus 50 ft. An altitude/height determined by the Administrator will be annotated with the acronym FAA next to the number (e.g., 150 ft. (FAA)).

Table 1. Approved Airplanes, Equipment and MUHs

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

- 4. <u>Limitations and Provisions.</u> LOA C071 does not replace or override LOAs C059, C060, or C061.
- a. Operations. The operator/company must not engage the autopilot unless the autopilot system is fully operational. The operator/company must conduct operations in accordance with the airworthiness certification of the autopilot system.
- b. Airworthiness. The operator/company must maintain the airplanes and equipment listed in Table 1.
- 5. <u>Flightcrew Training.</u> The flightcrew must have successfully completed training on the equipment and instrument approach procedures to be used.