



Federal Aviation Administration

Memorandum

Date: November 12, 2014

To: See Distribution List

From: David Hempe, Manager, Design, Manufacturing, and Airworthiness Division, AIR-100 *DH*

Prepared by: Thomas Rampulla, Airworthiness Certification Section, AIR-113

Subject: Deviations to Federal Aviation Administration (FAA) Order 8130.34C, Appendix A, Operating Limitations for Unmanned Aircraft Systems (UAS), and Aircraft Inspection Procedures

Memo No.: AIR100-14-110-DM12

This memorandum authorizes multiple deviations to UAS operating limitations listed in Appendix A of FAA Order 8130.34C, *Airworthiness Certification of Unmanned Aircraft Systems and Optionally Piloted Aircraft*. Additionally, this memorandum authorizes deviations to aircraft inspection items involving the altimeter and transponder.

This memorandum authorizes the following deviations:

Note: Since the publication of Order 8130.34C, AIR-200 was reorganized into AIR-100. All references to AIR-200 are outdated and will be replaced with AIR-100 in the next revision to the order.

1. Limitation 1h states, in part, that "AIR-200 will be included on the transmission." Mr. Tom Rampulla, AIR-113, at email thomas.rampulla@faa.gov, will serve as the AIR-100 point of contact. Also, change the fax number for the Tactical Operation Section to 202-267-8249.
2. In limitation 3d, Incident and Accident Reporting, change the AFS-80 telephone number to 202-267-8272 and change the AFS-80 fax number to 202-267-8249.
3. Limitation 4a, states, in part, that "Initial flight testing will be completed upon accumulation of (*number*) flight hours, (*number*) takeoffs and landings (select as appropriate), or when the aircraft is deemed controllable and safe for operation, whichever occurs later." This sentence will be replaced with the following two sentences, "Initial flight testing will be addressed in the applicant's flight test plan. AFS-84 and AFS-86 will review the applicant's flight test plan."

4. Limitation 4a requires the operations manager or chief pilot to make the following statement in the aircraft records: "...The following aircraft operating data has been demonstrated during the flight testing: speeds Vx____, and Vy____, and the weight ____ and CG location at which they were obtained." This sentence may be omitted for UAS without an airspeed indicator or an airspeed display. The operations manager or chief pilot must still certify that the flight test plan has been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operations.
5. Limitation 7b addresses transponder requirements. Change the first sentence in limitation 7b(1) to read, "In airspace that requires a transponder, the UA must operate with a transponder that meets the performance and environmental requirements of any class of Technical Standard Order (TSO)-C74d or TSO-C112, to include altitude reporting, during all flight operations." Limitation 7b(2), 7c(1), and 7c(2) will be included in an applicant's operating limitations as applicable.
6. Limitation 7d addresses aircraft lights. Delete the two sentences in limitation 7d and replace with the following: "Lights will be operated in accordance with § 91.209."
7. Replace limitation 12d(4) with the following, "No person may operate this UAS with an ATC transponder required under § 91.215 unless the transponder has been maintained in accordance with § 91.413, ATC transponder tests and inspections." This limitation is only applicable to UAS equipped with a transponder.
8. Add the following as limitations 12d(5) and 12d(6). Limitation 12d(6) is only applicable if IFR operations in controlled airspace are approved.

12d(5) No person may operate this UAS under VFR unless the altimeter system has been tested in accordance with the manufacturer's maintenance and inspection program.

12d(6) No person may operate this UAS in controlled airspace under IFR unless the altimeter system has been tested within the preceding 24 calendar months in accordance with § 91.411, Altimeter system and altitude reporting equipment tests and inspections.
9. Limitation 14, Aircraft Operations following Major Changes, states, in part, that "The aircraft must first be flight tested for (*number*) hours or by completing (*number*) takeoffs and full stop landings (*select, as appropriate*), or when the aircraft is deemed controllable and safe for operation, whichever occurs later." Replace this sentence with the following two sentences, "The aircraft must first be flight tested according to the applicant's flight test plan. AFS-84 and AFS-86 will review the applicant's flight test plan."
10. Limitation 15, Information Reporting, requires an applicant to report monthly data to the FAA. Write limitation 15 as, "(Company name) will provide the following information to Mr. Sean Connor, AFS-80, at email: Sean.CTR.Connor@faa.gov, on a monthly basis." Include items 15(a) through 15(e).

This deviation authorizes a change to paragraph 7b(5) on page 3-8 so that it states, “The altimeter inspections have been certified in accordance with the manufacturer’s maintenance and inspection program or § 91.411, Altimeter system and altitude reporting equipment tests and inspections, whichever is applicable. In addition, any associated instruments must operate properly.”

This deviation authorizes the insertion of a new paragraph, 7b(6), on page 3-8 to read, “The transponder inspections have been certified in accordance with § 91.413, ATC transponder tests and inspections, if IFR operations in controlled airspace have been approved.” Renumber existing paragraph 7b(6) as 7b(7).

If you have any questions, please contact the Airworthiness Certification Section, AIR-113, at 202-267-4524.

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