



OFFICE OF THE NATIONAL COMMANDER
CIVIL AIR PATROL
UNITED STATES AIR FORCE AUXILIARY
MAXWELL AIR FORCE BASE, ALABAMA 36112-6332

28 October 2009

MEMORANDUM FOR ALL CAP NATIONAL BOARD MEMBERS

FROM: CAP/CC

SUBJECT: INTERIM CHANGE LETTER – Aircraft Equipment Requirements and Reporting Maintenance Discrepancies

1. The Federal Aviation Administration (FAA) has brought to our attention that some of our pilots may be in need of clarification regarding aircraft equipment requirements and the proper procedures for reporting aircraft discrepancies. I'm confident we all take maintaining our aircraft to FAA standards very seriously so we must ensure we are in compliance with all applicable Federal laws.
2. Attached is an excerpt from the Code of Federal Regulations (CFR's) § 91.205 that lists the instruments and equipment required to operate in the various types of flight conditions. All pilots need to become very familiar with these requirements and those in § 91.213(d). If the item specified in 91.205 is reported as inoperative, it automatically precludes that aircraft from operating in those flight conditions (VFR, Night, IFR) until the discrepancy is corrected by an authorized maintenance facility and signed off in the aircraft log books.
3. The FAA reminds pilots to review all aircraft discrepancy items and ensure the aircraft is in an airworthy condition prior to flight. Pilots need to be aware of the procedures contained in CFR § 91.213(d). (see Attachment 2) Any inoperative equipment must be addressed prior to flight. These may be addressed by CFR § 91.213(d) 4. CFR § 91.213 specifies that anytime there is inoperative equipment, a certificated pilot or mechanic must make a determination that the inoperative item does not constitute a hazard to safety of the flight or the airworthiness of the aircraft. If it does, then it must be corrected prior to flight. If it is not a grounding item, the item must be either removed from the aircraft or deactivated and placarded 'inoperative'. If the aircraft is grounded, the pilot must place the red "Aircraft Grounded Placard" from the Aircraft Information File on the pilot's seat.
4. To ensure that CAP is complying with all applicable CFRs, all discrepancy logs will be removed from the aircraft. These logs will now be maintained by the aircraft maintenance officer. The aircraft maintenance officer should be better prepared to ensure CAP is in compliance with the CFRs. At the completion of every flight for which there is a new discrepancy noted, the pilot in command (PIC) must contact the aircraft maintenance officer and the aircraft maintenance officer will enter the discrepancy and a subsequent corrective action for every discrepancy as outlined in paragraphs 2 and 3 above. PICs must contact the aircraft maintenance officer before a scheduled flight to determine what discrepancies exist.
5. To make the entire maintenance discrepancy reporting process easier and more transparent, we have begun a test of an online system to monitor the status of our aircraft. It is working well in PA and FL wings so we are expanding it to several more wings. All CAP wings will eventually transition to this system. The online system allows maintenance officers and pilots to be able to more easily track individual discrepancies and determine whether or not they

constitute a hazard to flight. Wings that are involved in the test of the online system automatically meet the tracking and reporting requirements stated in the paragraphs above.

6. This interim change letter will remain in effect until CAP regulations are modified to incorporate this change.

7. In closing, please tell your members that if they notice items are not getting repaired on our aircraft in a timely manner, they should report that to their unit commander, group commander (if applicable) or yourself. The safety of operating all of our equipment, including our airplanes, should be our primary concern. Thank you for your selfless commitment to serve your communities, your individual states, and our nation. Our organization has provided outstanding service for over 67 years and we want to continue doing that by making sure all our resources are properly maintained.



AMY S. COURTER
Major General, CAP
National Commander

3 Attachments

1. Excerpt from FAR Sec 91.205
2. Excerpt from AOPA Article on Operations Under FAR 91.213
3. Discrepancy Log (to be completed/maintained by the aircraft maintenance officer)

cc:

CAP/EX/GC/MD/DO/LG/SE/XP/IT/IG/EXS/EXM
CAP-USAF/CC/CV/XO/SE
CAP-USAF Region Commanders
CAP-USAF State Directors
CAP Wing Administrators
CAP Maintenance Officers
CAP Directors of Operations
Col Skiba
Col Guimond

Excerpt from FAR Sec. 91.205 - Instrument and equipment requirements

(a) General. Except as provided in paragraphs (c)(3) and (e) of this section, no person may operate a powered civil aircraft with a standard category U.S. airworthiness certificate in any operation described in paragraphs (b) through (f) of this section unless that aircraft contains the instruments and equipment specified in those paragraphs (or FAA-approved equivalents) for that type of operation, and those instruments and items of equipment are in operable condition.

(b) Visual-flight rules (day). For VFR flight during the day, the following instruments and equipment are required:

- (1) Airspeed indicator.
- (2) Altimeter.
- (3) Magnetic direction indicator.
- (4) Tachometer for each engine.
- (5) Oil pressure gauge for each engine using pressure system.
- (6) Temperature gauge for each liquid-cooled engine.
- (7) Oil temperature gauge for each air-cooled engine.
- (8) Manifold pressure gauge for each altitude engine.
- (9) Fuel gauge indicating the quantity of fuel in each tank.
- (10) Landing gear position indicator, if the aircraft has a retractable landing gear.
- (11) For small civil airplanes certificated after March 11, 1996, in accordance with part 23 of this chapter, an approved aviation red or aviation white anticollision light system. In the event of failure of any light of the anticollision light system, operation of the aircraft may continue to a location where repairs or replacement can be made.
- (12) If the aircraft is operated for hire over water and beyond power-off gliding distance from shore, approved flotation gear readily available to each occupant and, unless the aircraft is operating under part 121 of this subchapter, at least one pyrotechnic signaling device. As used in this section, "shore" means that area of the land adjacent to the water which is above the high water mark and excludes land areas which are intermittently under water.
- (13) An approved safety belt with an approved metal-to-metal latching device for each occupant 2 years of age or older.
- (14) For small civil airplanes manufactured after July 18, 1978, an approved shoulder harness for each front seat. The shoulder harness must be designed to protect the occupant from serious head injury when the occupant experiences the ultimate inertia forces specified in Sec. 23.561(b)(2) of this chapter. Each shoulder harness installed at a flight crewmember station must permit the crewmember, when seated and with the safety belt and shoulder harness fastened, to perform all functions necessary for flight operations. For purposes of this paragraph--
 - (i) The date of manufacture of an airplane is the date the inspection acceptance records reflect that the airplane is complete and meets the FAA-approved type design data; and
 - (ii) A front seat is a seat located at a flight crewmember station or any seat located alongside such a seat.
- (15) An emergency locator transmitter, if required by Sec. 91.207.

(16) For normal, utility, and acrobatic category airplanes with a seating configuration, excluding pilot seats, of 9 or less, manufactured after December 12, 1986, a shoulder harness for--

(i) Each front seat that meets the requirements of Sec. 23.785 (g) and (h) of this chapter in effect on December 12, 1985;

(ii) Each additional seat that meets the requirements of Sec. 23.785(g) of this chapter in effect on December 12, 1985.

(17) For rotorcraft manufactured after September 16, 1992, a shoulder harness for each seat that meets the requirements of Sec. 27.2 or Sec. 29.2 of this chapter in effect on September 16, 1991.

(c) Visual flight rules (night). For VFR flight at night, the following instruments and equipment are required:

(1) Instruments and equipment specified in paragraph (b) of this section.

(2) Approved position lights.

(3) An approved aviation red or aviation white anticollision light system on all U.S.-registered civil aircraft. Anticollision light systems initially installed after August 11, 1971, on aircraft for which a type certificate was issued or applied for before August 11, 1971, must at least meet the

anticollision light standards of part 23, 25, 27, or 29 of this chapter, as applicable, that were in effect on August 10, 1971, except that the color may be either aviation red or aviation white. In the event of failure of any light of the anticollision light system, operations with the aircraft may be continued to a stop where repairs or replacement can be made.

(4) If the aircraft is operated for hire, one electric landing light.

(5) An adequate source of electrical energy for all installed electrical and radio equipment.

(6) One spare set of fuses, or three spare fuses of each kind required, that are accessible to the pilot in flight.

(d) Instrument flight rules. For IFR flight, the following instruments and equipment are required:

(1) Instruments and equipment specified in paragraph (b) of this section, and, for night flight, instruments and equipment specified in paragraph (c) of this section.

[(2) Two-way radio communication and navigation equipment suitable for the route to be flown.]

(3) Gyroscopic rate-of-turn indicator, except on the following aircraft:

(i) Airplanes with a third attitude instrument system usable through flight attitudes of 360 degrees of pitch and roll and installed in accordance with the instrument requirements prescribed in Sec. 121.305(j) of this chapter; and

(ii) Rotorcraft with a third attitude instrument system usable through flight attitudes of ± 80 degrees of pitch and ± 120 degrees of roll and installed in accordance with Sec. 29.1303(g) of this chapter.

(4) Slip-skid indicator.

(5) Sensitive altimeter adjustable for barometric pressure.

- (6) A clock displaying hours, minutes, and seconds with a sweep-second pointer or digital presentation.
- (7) Generator or alternator of adequate capacity.
- (8) Gyroscopic pitch and bank indicator (artificial horizon).
- (9) Gyroscopic direction indicator (directional gyro or equivalent).

Excerpt from AOPA Article

Operations under FAR 91.213

For those aircraft operating without a minimum equipment list (MEL), FAR 91.213 describes the process of determining the airworthiness of an aircraft with inoperative equipment. Use these four questions to verify whether or not your aircraft is legal to fly under 91.213.

1. Is the affected equipment part of the VFR-day type certificate (91.213 [d][2][i])? If yes, the aircraft is grounded. If no, go to the next question.
2. Is the affected equipment listed as required on the aircraft's equipment list or kinds of operation list (91.213 [d][2][ii])? If yes, the aircraft is grounded. If no, go to the next question.
3. Is the affected equipment required by any other regulation, i.e. 91.205, 91.207, etc. (91.213 [d][2][iii])? If yes, the aircraft is grounded. If no, go to the next question.
4. Is the affected equipment required to be operative by an airworthiness directive (91.213 [d][2][iv])? If yes, the aircraft is grounded. If no, go to the final step.

The final step is that the affected item must be removed from the aircraft or deactivated and placarded inoperative (91.213 [d][3][ii-iii]).

The go/no-go decision is one of the most fundamental decisions that a pilot will make, and an integral part of that decision is determining the airworthiness of the aircraft.



DISCREPANCY LOG



This log will be maintained by the Aircraft Maintenance Officer (AMO) and not kept in the airplane. The AMO will complete the log with input from the pilot.

N _____ CAP - _____ PAGE # _____

OPERATIONS IMPACT		DISCREPANCY - DESCRIBE IN DETAIL	CORRECTIVE ACTION <small>(Note: This section must be completed for every write-up even if the initial action is to defer until the next scheduled maintenance.)</small>	
<u>AIRCRAFT GROUNDED</u>	<input type="checkbox"/>			
IFR Flight Prohibited	<input type="checkbox"/>			
Night Flight Prohibited	<input type="checkbox"/>			
Not Mission Ready	<input type="checkbox"/>			
Inspection Required	<input type="checkbox"/>			
No Flight Restriction	<input type="checkbox"/>			
Found By:		Reported To:	Corrected By:	Date:
Date:				

OPERATIONS IMPACT		DISCREPANCY - DESCRIBE IN DETAIL	CORRECTIVE ACTION	
<u>AIRCRAFT GROUNDED</u>	<input type="checkbox"/>			
IFR Flight Prohibited	<input type="checkbox"/>			
Night Flight Prohibited	<input type="checkbox"/>			
Not Mission Ready	<input type="checkbox"/>			
Inspection Required	<input type="checkbox"/>			
No Flight Restriction	<input type="checkbox"/>			
Found By:		Reported To:	Corrected By:	Date:
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<u>AIRCRAFT GROUNDED</u>	<input type="checkbox"/>			
IFR Flight Prohibited	<input type="checkbox"/>			
Night Flight Prohibited	<input type="checkbox"/>			
Not Mission Ready	<input type="checkbox"/>			
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No Flight Restriction	<input type="checkbox"/>			
Found By:		Reported To:	Corrected By:	Date:
Date:				