

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

N 8000.289

11/2/04

Cancellation
Date: 11/2/05

SUBJ: COCKPIT VOICE RECORDER TESTING RECOMMENDATION

1. PURPOSE. This notice provides recommended guidance for daily preflight checks of Cockpit Voice Recorders (CVR) for those aircraft required by Title 14 of the Code of Federal Regulations (14 CFR) to be so equipped.

2. DISTRIBUTION. This notice is distributed to the division level in the Flight Standards Service in Washington headquarters; to the branch level in the regional Flight Standards divisions; to the Flight Standards District Offices; and to the Regulatory Standards Division at the Mike Monroney Aeronautical Center. This notice is also distributed electronically to the division level in the Flight Standards Service in Washington headquarters and to all regional Flight Standards divisions and district offices. This information is also available on the Federal Aviation Administration's (FAA) Web site at:
<http://www.faa.gov/avr/afs/notices/8000/N8000-289.doc>.

3. BACKGROUND. Recently, numerous aircraft accident investigative reports have revealed findings of poor or inoperative CVR functionality. The National Transportation Safety Board (NTSB) informed the FAA that causes have been attributed to failure of one or more audio channels, degraded audio fidelity or quality, and broken tape loops, drives, etc. The NTSB recommended to the FAA that periodic testing be accomplished to ensure the integrity of performance of CVRs when undergoing, or after having undergone, maintenance.

a. In response, the FAA revised Order 8300.10, Airworthiness Inspector's Handbook, volume 3, chapter 143, which in part directs "Airworthiness Aviation Safety Inspectors to evaluate maintenance programs that require maintenance technicians to perform a thorough test of the CVR at intervals considered appropriate by the CVR manufacturer. This test must be conducted according to procedures provided by the CVR manufacturer and shall include, at a minimum, listening to the recorder signals on each channel to verify that the audio is being recorded properly, is intelligible, and is free from electrical noise or other interference."

b. The NTSB, in its response to the FAA's strengthening of its policy, elevated its recommendation to assert that tests of the CVR be performed prior to the first flight of the aircraft each day and that the procedure for completing such tests be included within the approved preflight checklist for the aircraft. The FAA, upon investigation of various aircraft and CVR equipment manufacturers, determined that such action may not be achievable due to the differences in aircraft installations, types of CVRs or their respective control panels, specific wiring to an aircraft cockpit intercom, and cabin audio stations, etc. However, for those

compatible systems, the FAA encourages operators to perform tests such as those described below.

4. RECOMMENDATION.

a. To test the CVR, insert headphones into the CVR control panel, if so equipped, position them comfortably over or in the ear(s) (depending upon headphone or headset type) for proper audibility, and perform the operations in the following subparagraphs (1) and (2):

(1) From the pilot's station, select the audio controller to the intercom position to avoid radio transmission, depress the microphone key switch, and speak at a normal voice level into the microphone; at the same time,

(2) Listen in the headphones for your speech playback which should be heard as discernible and undistorted. Note that your modulated voice may be delayed due to the recording process, but will vary in delay length, depending upon manufactured make and model of CVR; or,

b. Depress the self-test button on an appropriately configured CVR control panel and observe the test meter response or listen in the headphones or headset to the audible tone or feedback loop of prerecorded audio. Such tone or audio should be discernible and undistorted. Note that depending upon the CVR model, it may be necessary to press and hold the self-test button.

c. If not equipped to perform tests in subparagraphs a and b, the FAA encourages all operators with installed CVRs without the means to test microphone audio from the flight deck to implement this test functionality at the next available maintenance inspection or during a major modification activity where the CVR is accessible for rewiring or reconfiguring.

5. ACTION. Principal operations inspectors (POI) and principal maintenance inspectors (PMI) should advise their operators of this notice. POIs should tell their operators that have CVRs with the ability to be tested by the above recommended steps to revise their operations manuals and preflight checklist to include these daily test procedures. PMIs should tell their applicable operators to modify their aircraft to facilitate CVR testing as per this notice at the soonest possible maintenance interval.

6. DISPOSITION. This notice will not be incorporated into Order 8400.10, Air Transportation Operations Inspector's Handbook. Questions concerning this notice should be directed to AFS-220, Air Carrier Operations Branch, at (202) 267-8166.

/s/ John M. Allen (for)
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