## Title 14—AERONAUTICS AND SPACE

Chapter I—Federal Aviation Administration, Department of Transportation

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[Docket No. 8438; Amdt. 25-16, 121-32]

PART 25—AIRWORTHINESS STAND-ARDS: TRANSPORT CATEGORY AIRPLANES

PART 121—CERTIFICATION AND OP-ERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

## Cockpit Voice Recorders

The purpose of these amendments to Parts 25 and 121 of the Federal Aviation Regulations is to revise § 25.1457(d) (2) to permit the installation of cockpit voice recorders which have an automatic means to stop each erasure feature from functioning within 10 minutes after the instant of crash impact, and to clarify § 121.359 with respect to the retention of recorded information by the certificate holders.

Current § 25.1457(d) (2) requires that cockpit voice recorders must be installed so that there is an automatic means to stop each erasure feature from functioning at the instant of each impact. A number of different means have been utilized in the various voice recorder systems in an attempt to comply with this requirement. However, precise compliance has proven to be very difficult, and with the automatic means now available under the present state-of-the-art, there could be a period of time following crash impact during which the erasure feature continues to function. This has created no particular problem to date since all of the recorders presently used are of the continuous loop type which continue to record during the time the erasure feature is functioning. Moreover, the FAA is now aware that there are situations in which cockpit sounds, including crew voices, for a short interval after the instant of crash impact could be useful in the subsequent accident investigation. Since, under the operating rules, an op-

erator may erase all but the last 30 minutes of recorded information, the FAA considers that in those cases where there could be an interval of recorder operation after crash impact, the cockpit voice recorder must be designed and installed so that this interval cannot exceed 10 minutes. Thus, a minimum of 20 minutes of recorded information before the instant of impact would necessarily be retained.

Furthermore, it is necessary that the recorder and the erasure feature cease to function simultaneously in order to assure a full 30 minutes of intelligible recording. This is obviously the intent of the present rules, and in all of the current voice recorder installations, the erasure feature is stopped by stopping the recorder. Therefore, for the purpose of clarifying the voice recorder requirements, it is considered appropriate to amend § 25.1457(d) (2) to specify that the automatic means must simultaneously stop the recorder and prevent each erasure feature from functioning.

Under § 121.359(e), the certificate holder must retain the recorded information for at least 60 days in the event of an accident or occurrence requiring immediate notification of the National Transportation Safety Board under Part 320 of its regulations. On the other hand, paragraph (a) of § 121.359 requires that the recorder must be operated continu-ously from the start of the use of the checklist to completion of the final check-list at the termination of the flight. Moreover, paragraph (d) permits the use of an erasure feature on the recorder so that information recorded more than 30 minutes earlier may be erased. The requirements of paragraphs (a) and (d) have created some concern in determining the appropriate course of action in the event of an inflight accident or occurrence. While paragraph (e) requires the retention of recorded data in the event of an accident or occurrence, this is not possible in the event of an inflight accident or occurrence since paragraph (a) requires that the recorder must continue to operate until completion of final checklist at termination of the flight and paragraph (d) permits the erasure of all but the last 30 minutes of recorded information. It is therefore obvious that the accident or occurrence referred to in paragraph (e) is not an inflight accident or occurrence but one that results in the termination of the flight. The requirements of paragraph (e) have, therefore, been amended to make this clear.

Since these amendments remove an unnecessary restriction and provide clarification of existing regulations, I find that notice and public procedure hereon is unnecessary and good cause exists for making these amendments effective on less than 30 days' notice.

These amendments are issued under the authority of sections 313(a), 601, and 603 of the Federal Aviation Act of 1958 (49 U.S.C. 1354(a), 1421, and 1423).

In consideration of the foregoing, § 25.1457(d) (2) of Part 25 and § 121.359 (e) of Part 121 of the Federal Aviation Regulations (14 CFR Parts 25 and 121) are amended, effective October 6, 1967, as follows:

1. By amending § 25.1457(d)(2) to read as follows:

§ 25.1457 Cockpit voice recorders.

(d) \* \* \*

(2) There is an automatic means to simultaneously stop the recorder and prevent each erasure feature from functioning, within 10 minutes after crash impact; and

2. By amending § 121.359(e) to read as follows:

## $\S$ 121.359 Cockpit voice recorders.

(e) In the event of an accident or occurrence requiring immediate notification of the National Transportation Safety Board under Part \_\_\_\_ of its regulations (present Part 320 of this title), which results in the termination of the flight, the certificate holder shall keep the recorded information for at least 60 days or, if requested by the Administrator or the Board, for a longer period. Information obtained from the record is used to assist in determining the cause of accidents or occurrences in connection with investigations under Part \_\_\_\_\_ (present Part 320 of this title). The Administrator does not use the record in any civil penalty or certifi-

Issued in Washington, D.C., on September 29, 1967.

William F. McKee, Administrator.