MS-126

FEDERAL AVIATION AGENCY
BUREAU OF FLIGHT STANDARDS
Washington 25, D. C.

November 23, 1960

~~E.T.~~
~~G.B.~~
~~B.H.~~
~~C.R.~~
File
CAM-43

CIVIL AIR REGULATIONS DRAFT RELEASE NO. 60-18
(Part 43 of CARs)

SUBJECT: Installation and Use of Flight Recorders in Certain Airplanes Used for Air Carrier and Commercial Operator Flight Checks or Training Flights, Ferry Flights, and Airworthiness Test Flights

---

The Bureau of Flight Standards of the Federal Aviation Agency has under consideration an amendment to Part 43 of the Civil Air Regulations. The reasons therefor are set forth in the explanatory statement of the attached proposal which is being published in the Federal Register as a notice of proposed rule making.

The Bureau of Flight Standards desires that all persons who will be affected by the requirements of this proposal be fully informed as to its effect upon them and is therefore circulating copies in order to afford interested persons ample opportunity to submit comments as they may desire.

Because of the large number of comments which we anticipate receiving in response to this draft release, we will be unable to acknowledge receipt of each reply. However, you may be assured that all comment will be given careful consideration.

It should be noted that comments must be submitted in duplicate to the Docket Section of the FAA, and in order to insure consideration must be received not later than January 30, 1961.

George C. Prill
Acting Director,
Bureau of Flight Standards

1014a

FEDERAL AVIATION AGENCY

BUREAU OF FLIGHT STANDARDS

/14 CFR Part 43/

/Regulatory Docket No. 580; Draft Release No. 60-18/

NOTICE OF PROPOSED RULE MAKING

Installation and Use of Flight Recorders in Certain Airplanes Used for Air Carrier and Commercial Operator Flight Checks or Training Flights, Ferry Flights, and Airworthiness Test Flights

Pursuant to the authority delegated to me by the Administrator (§ 405.27, 24 F.R. 2196), notice is hereby given that the Federal Aviation Agency has under consideration a proposal to amend Part 43 of the Civil Air Regulations as hereinafter set forth.

Interested persons may participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should be submitted in duplicate to the Docket Section of the Federal Aviation Agency, Room B-316, 1711 New York Avenue, N. W., Washington 25, D. C. All communications received by January 30, 1961, will be considered by the Administrator before taking action on the proposed rule. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available for examination by interested persons in the Docket Section when the prescribed date for return of comments has expired.

Parts 40, 41, and 42 of the Civil Air Regulations contain provisions for the installation and use of an approved flight recorder on all large air carrier airplanes (more than 12,500 pounds maximum certificated

takeoff weight) certificated for operation above 25,000 feet, and on all large turbine-powered air carrier airplanes. Insofar as air carriers are concerned, the provisions of Parts 40, 41, and 42 are applicable only while such airplanes are being operated by the air carriers in air transportation. They are not applicable while the airplanes are being used by an air carrier or commercial operator in operations not in air transportation; for example, while being used for flight checks, training flights, ferry flights, or for airworthiness test flight purposes.

The safety considerations which form the basis of the flight recorder provisions of Parts 40, 41, and 42 are equally applicable to flight checks or training flights, ferry flights, or airworthiness test flights, when such flights are conducted by the holder of an air carrier or commercial operating certificate with large airplanes certificated for operation above 25,000 feet or with large turbine-powered airplanes. Therefore, essential information must be obtained for accident prevention or other safety purposes when these airplanes are being used to conduct flight checks, training flights, ferry flights, or airworthiness test flights.

Several accidents have occurred during air carrier training flights which involved turbine-powered airplanes. In the investigation of these accidents the information derived from flight recorders proved invaluable in determining the probable cause thereof. However, it was clear in those instances where a recorder was not installed or operating, that essential and pertinent information was lacking. Further, the investigation of these accidents has shown that destruction of essential evidence can be expected when such high-speed airplanes are involved, and that evidence essential to accurate cause determination can best be preserved or obtained by means of an automatic recording device operating at the time of the accident. Public interest and public safety demand that this type of information be made available whenever possible.

Accordingly, in order to assist the Civil Aeronautics Board and the Administrator in the proper discharge of their responsibilities under the Federal Aviation Act of 1958, the Federal Aviation Agency proposes to amend Part 43 of the Civil Air Regulations, at the earliest practicable date, to require the holder of an air carrier or commercial operating certificate to have installed and in operation an approved flight recorder on all large aircraft certificated for operation above 25,000 feet altitude, and on all large turbine-powered airplanes, when such airplanes are being operated for flight checks or training flights, ferry flights, or airworthiness test flights.

In addition to the above, it is proposed that the holder of an air carrier operating certificate will have until May 1, 1961, to install an approved flight recorder on those large airplanes subject to this proposed rule which it operates pursuant to provisional certificate authority issued under the provisions of Special Civil Air Regulations SR-425A and SR-425B. It is the opinion of this Agency that the May 1, 1961, compliance date for the installation of approved recorders on provisionally certificated airplanes subject to this proposed rule will allow the air carriers concerned an adequate period of time in which to acquire approved recorders and complete the installation required.

It will be noted that the proposed section 43.32(b) will require an air carrier or commercial operator, when operating, under the provisions of Part 43, an airplane with an approved flight recorder installed, to operate the flight recorder continuously from the instant the pilot commences the takeoff roll of the airplane until the landing roll is completed at an airport. In the event of failure of the flight recorder after becoming airborne on flight checks or training flights or airworthiness test flights, the operation may be continued and completed as planned. In the case of ferry flights, the airplane may continue flight to the next stop where repairs or replacements can be made.

In consideration of the foregoing, it is proposed to amend Part 43 of the Civil Air Regulations (14 CFR Part 43, as amended) by adding a new § 43.32 to read as follows:

§ 43.32 Flight recorders.

(a) Except as otherwise provided in paragraph (d) of this section, the holder of an air carrier or commercial operator certificate shall not operate any of the following type airplanes in the conduct of flight checks or training flights, ferry flights, or airworthiness test flights, after the dates specified unless there is installed on the airplane an approved flight recorder which records at least time, altitude, airspeed, vertical acceleration, and heading:

(1) On and after February 1, 1961, airplanes of more than 12,500 pounds maximum certificated takeoff weight which are certificated for operations above 25,000 feet altitude;

(2) On and after February 1, 1961, turbine-powered airplanes of more than 12,500 pounds maximum certificated takeoff weight; and

(3) On and after May 1, 1961, provisionally certificated large airplanes (more than 12,500 pounds maximum certificated takeoff weight) certificated for operations above 25,000 feet and provisionally certificated large turbine-powered airplanes.

(b) When an approved flight recorder is installed on any airplane in accordance with paragraph (a) of this section, the recorder shall be operated continuously from the instant the pilot commences the takeoff roll until he has completed the landing roll at an airport. In the event of failure of the flight recorder after becoming airborne on flight checks or training flights or airworthiness test

flights, the operation may be continued and completed as planned. In the case of ferry flights, the airplane may continue flight to the next stop where repairs or replacements can be made.

(c) Recorded information shall be retained by the air carrier or commercial operator for a period of at least 60 days. For a particular flight or series of flights, the information shall be retained for a longer period if requested by an authorized representative of the Administrator or the Civil Aeronautics Board.

(d) The holder of an air carrier or commercial operator certificate granted an extension by the FAA of the date for compliance with the flight recorder installation requirements of Part 40, 41, or 42 of the Civil Air Regulations applicable to an airplane type specified in paragraph (a) of this section shall also have until such extended date to comply with the installation requirements of this section as they apply to such airplane type.

These amendments are proposed under the authority of sections 313(a), 601 - 610 of the Federal Aviation Act of 1958, (72 Stat. 752, 775 - 780; 49 U. S. C. 1354(a), 1421 - 1430).

Director,
Bureau of Flight Standards

Issued in Washington, D. C., on November 23, 1960.