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

March 28, 1960

CIVIL AIR REGULATIONS DRAFT RELEASE NO. 60-6

SUBJECT: Installation of Flight Recorders in Turbine-Powered Airplanes

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The Bureau of Flight Standards of the Federal Aviation Agency has under consideration amendments to Parts 40, 41, and 42 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 Federal Aviation Agency, and in order to insure consideration must be received by May 3, 1960.

B Putnam
Actg Director,
Bureau of Flight Standards

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FEDERAL AVIATION AGENCY

BUREAU OF FLIGHT STANDARDS

/14 CFR Parts 40, 41, 42/

/Regulatory Docket No. 326; Draft Release No. 60-67/

NOTICE OF PROPOSED RULE MAKING

Installation of Flight Recorders in Turbine-Powered Airplanes

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 Parts 40, 41, and 42 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 May 3, 1960, 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 comment 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.

On September 9, 1957, Parts 40, 41, and 42 were amended to require the installation and use of flight recorders which record time, airspeed, altitude, vertical acceleration, and heading on air carrier airplanes of more than 12,500 pounds maximum certificated takeoff weight which

were certificated for flight operations above 25,000 feet. At the time these rules were adopted it was contemplated that the flight recorder would be installed on those newer types of airplanes which would be operating at greater speeds and certificated for operations at those higher altitudes concerning which there was no substantial amount of civil operating experience. Thus the rules would have applied to all of the new turbine-powered airplanes, both turbojet and turbo-propeller, which, it was believed, would be certificated to operate above 25,000 feet. However, since the adoption of the rules, certain types of turbine-powered airplanes have been certificated to operate at or below 25,000 feet and have not been required to have the flight recorder installed. Experience indicates that turbine-powered airplanes certificated for operations below 25,000 feet when operating at high speeds are frequently subjected to forces which are substantially the same as those encountered by aircraft certificated and operated above 25,000 feet.

There have been a number of accidents and other hazardous occurrences in flight which involved turbine-powered airplanes. In the investigation of these accidents and occurrences, it was clear that the information derived from flight recorders was invaluable in determining the cause thereof. It was also very clear in those instances where the recorder was not installed, that essential and pertinent information was lacking. Further, the investigation of these accidents and occurrences has shown that destruction of essential evidence can be expected when such high-speed airplanes are involved in accidents, 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 is of the firm opinion that the Civil Air Regulations should be amended at the earliest practicable date to require that all turbine-powered airplanes operated by air carriers be equipped with a flight recorder. In view of the availability and urgent need for flight recorders, it is proposed to require their installation and use on all large turbine-powered airplanes by September 1, 1960. This proposal will require the operation of the recorder during flight, but not during taxi operation to and from the runway. The Agency believes that this date will provide all air carriers subject to this proposal ample time in which to comply, provided such operators undertake the acquisition and installation of such recorders immediately following the adoption date of this proposal.

In consideration of the foregoing, it is proposed to amend the appropriate sections of Parts 40, 41, and 42 of the Civil Air Regulations with an effective date of September 1, 1960, to read as follows:

Flight recorders.

(a) An approved flight recorder which records at least time, airspeed, altitude, vertical acceleration, and heading shall be installed on all turbine-powered airplanes of more than 12,500 pounds maximum

certificated takeoff weight, and on all other airplanes of more than 12,500 pounds maximum certificated takeoff weight which are certificated for operations above 25,000 feet altitude.

(b) Flight recorders required by this section shall be installed and operating continuously during flight.

(c) Recorded information shall be retained by the air carrier 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.

These amendments are proposed under the authority of sections 313(a), 601, and 604 of the Federal Aviation Act of 1958, (72 Stat. 752, 775, 778; 49 U.S.C. 1354(a), 1421, 1424).

B Butterworth
Acting Director,
Bureau of Flight Standards

Issued in Washington, D. C. , on March 28, 1960.