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**Department of
Transportation**

Federal Aviation Administration

**14 CFR Part 91
Flight Recorders and Cockpit Voice
Recorders; Final Rule**

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No. 26666; Amdt. No. 91-228]

RIN 2120-AD62

Flight Recorders and Cockpit Voice Recorders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the Federal Aviation Regulations to allow part 91 operators to continue flight, or ferry certain aircraft, in the event that the flight recorder (FR) and/or cockpit voice recorder (CVR) is inoperative. This change provides part 91 operators similar relief to that afforded air carriers and commercial operators operating under part 91 of the Federal Aviation Regulations (FAR). Additionally, this change permits part 91 operators to operate for up to 15 days with an inoperative FR or CVR. These amendments are intended to prevent part 91 operations from being forced out of service unnecessarily.

EFFECTIVE DATE: May 5, 1992.

FOR FURTHER INFORMATION CONTACT: Thomas Glista, Regulations Branch (AFS-850), General Aviation and Commercial Division, 800 Independence Ave. SW., Washington, DC 20591; telephone: (202) 287-8150.

SUPPLEMENTARY INFORMATION:**Background**

Prior to October 11, 1991, § 91.609 of the Federal Aviation Regulations (FAR) required certain part 91 operators to install an approved flight recorder (FR) and operate it continuously from takeoff to landing. Furthermore, the rule required that approved cockpit voice recorders (CVR) be installed and operated continuously on the aircraft of certain part 91 operators.

Additionally, § 91.609 of the FAR provides relief to holders of air carrier or commercial operator certificates to operate their aircraft under certain conditions with the FR and/or CVR removed or inoperative. That relief was not provided to operators that do not hold an air carrier or commercial operators certificate.

To provide relief to part 91 operators similar to that already provided to holders of air carrier or commercial operator certificates, the FAA issued an interim rule on FR's and CVR's (56 FR 51618, October 11, 1991). This interim

rule provides similar relief to general aviation operators as to holders of air carrier or commercial operator certificates. Additionally, the interim rule provides relief to part 91 operators to operate for up to 15 days with an inoperative FR or CVR. This amendment was intended to prevent part 91 operations from being forced out of service unnecessarily. The interim rule expires on April 13, 1992.

History

The FAA issued Amendment Nos. 23-35, 25-65, 27-22, 29-25, 91-204, 121-197, 125-10, and 135-26 on June 30, 1988 (53 FR 26134, July 11, 1988), to require digital flight data recorders and cockpit voice recorders to be installed in a broad range of airplanes and rotorcraft operated by air carriers and commuter airlines, as well as in selected aircraft operated in general aviation. Compliance was required by October 11, 1991. The amendments respond to legislation that required the FAA to amend its FR and CVR requirements in accordance with recommendations from the National Transportation Safety Board. The intent of the amendments was to provide more information to accident investigators in determining the causes of accidents and the measures needed to correct the causes.

Section 91.609 of the FAR currently provides relief to holders of air carrier or commercial operator certificates to operate their aircraft under certain conditions with the FR and/or CVR removed or inoperative. Amendment 91-204 did not provide similar relief to part 91 operators. Consequently, strict compliance with § 91.609 would have compelled these part 91 operators to land immediately upon an FR or CVR becoming inoperative. Additionally, § 91.609, as written, would have prevented operators from ferrying an aircraft to a location where the equipment could be repaired or replaced, from conducting an airworthiness flight check, or from ferrying a newly acquired aircraft for the purpose of having an FR or CVR installed.

On September 27, 1989, the National Business Aircraft Association (NBAA) petitioned for an exemption from §§ 91.609 (c) and (d)(2) (formerly §§ 91.35 (c) and (d)(2)) of the FAR to permit its members, under certain conditions, to operate under the provisions of § 91.609(a) (formerly § 91.35(a)). The petition requested that NBAA members be permitted to operate those U.S.-registered multiengine turbine-powered civil airplanes and rotorcraft that are required to have FR's and CVR's while the aircraft's FR and/

or CVR is removed temporarily for inspection, repair, modification, or replacement. Additionally, NBAA requested that its members be permitted to operate their aircraft for a period of not more than 120 days after the FR and/or CVR is initially removed from the aircraft for repair. Approximately 260 comments supporting the petition were received in response to the Federal Register publication of the summary of the petition. No comments opposing the petition were received.

On January 23, 1990, Gulfstream Aerospace Corporation petitioned the FAA to amend the requirements of § 91.609. The petition requested that, subject to certain conditions, operators that do not hold an air carrier or commercial operator certificate be allowed to operate under the provisions of § 91.609(a) with an FR and/or CVR temporarily removed for inspection, repair, modification, or replacement.

The FAA determined that this issue should be resolved with a rule change. Consequently, on October 4, 1991, the FAA issued an interim rule on FR's and CVR's (56 FR 51618, October 11, 1991) that provides similar relief to part 91 operators as is already provided to holders of air carrier and commercial operator certificates. This interim rule provides additional relief to allow part 91 operators to operate for 15 days with the FR and/or CVR inoperative or removed for repair. The interim rule expires on April 13, 1992.

Discussion of Public Comments and the Amendment

Seventeen comments were received in response to the interim rule. Three agree with the change. Eleven commenters favor the interim rule in general, but had comments on portions of it. Two commenters did not state agreement or disagreement, but only provided comments. One commenter states that it has no comment to offer.

Comment

Six commenters indicate that the time given for repair or replacement (15 days plus 15 days) is inadequate. Two commenters request that additional time be allowed if the repair or replacement cannot be accomplished within the allotted time and the cause of delay is beyond the control of the operator. One commenter recommends 30 days plus 15 days; another recommends 25 working days plus an additional 15 working days. Other commenters do not recommend a specific number of days, but suggest that additional time should be available.

FAA Response

In its original petition, the NBAA stated that due to the expense of an FR or CVR (FR = \$25,000 to \$30,000 each; CVR = \$10,000 each), part 91 operators would not be expected to purchase spares in case of failure, and few, if any, maintenance facilities catering to part 91 operators would stock spare units. There is merit in this statement, and the FAA finds that it is appropriate to provide additional relief to part 91 operators to operate for a reasonable period of time with the FR and/or CVR removed for repair. The FAA determined that the 120-day period requested by the NBAA was excessive and could compromise the intent of the rule. In response to the petition, the FAA surveyed manufacturers of FR's and CVR's. The estimates by these manufacturers indicated that 15 days is the average amount of time needed to accomplish most repairs or to insure the availability of a replacement unit. The FAA conducted a follow-on survey in January, 1992 and the manufacturers estimates had not changed.

The interim rule allows an operator to operate an aircraft for not more than 15 days with the FR or CVR inoperative. This change also permits aircraft to be operated for an additional 15 days (for a total of 30 days) provided that certification is made in the aircraft maintenance records that additional time is required to complete repairs or obtain a replacement unit. At no time may the aircraft be operated for more than 30 days with the FR or CVR inoperative. The FAA has determined that providing additional time, with or without limits, could compromise the intent of the rule. Most repairs of FR's or CVR's can be completed within 15 days. In the event of unforeseen problems, an extra 15 days is provided. If extraordinary conditions exist, and the FR or CVR cannot be repaired within 30 days, a replacement unit can normally be obtained within 30 days. Consequently, this relief remains unchanged in the final rule.

Comment

Six commenters, including the NBAA, state that the words "and removed for repair" should be added after the word "inoperative" in § 91.609(b)(5)(i). Accordingly, this change would permit part 91 operators that do not hold an air carrier or commercial operator certificate to operate an aircraft with an inoperative FR and/or CVR for 15 days.

FAA Response

The FAA agrees. The intent of the rule was to include aircraft from which the

FR and/or CVR is inoperative or removed for repair. The final rule reflects this change.

Comment

One commenter states that the preamble to the interim rule uses the term "FR and/or CVR" whereas the final rule states "FR or CVR" and requests clarification.

FAA Response

The FAA did not intend to restrict this relief to one or the other component. The final rule has been changed to be consistent with the preamble discussion.

Comment

Two commenters, including the NBAA, states that the Minimum Equipment List (MEL) gives them relief for only 3 days with an FR or CVR inoperative. This is inconsistent with the rule and places an extra burden on persons who operate under an MEL. They indicate that the MEL should provide the same relief as the rule.

FAA Response

FAR § 91.213 states that when operating under the authorization of an MEL and a letter of authorization issued by the FAA, an operator must conduct all aircraft operations in accordance with the conditions and limitations contained in that MEL and letter of authorization. The letter of authorization permits the operator to use the Master MEL (MMEL) as an MEL. Together, the letter of authorization, the procedures document developed by the operator, and the MMEL, complete with its preamble, constitute a supplemental type certificate for the aircraft. The aircraft must be operated in accordance with the conditions and limitations contained in the MMEL, even when the MMEL is more restrictive than the FAR. In the case of the FR and/or CVR, however, the FAA agrees that relief granted in the MMEL for operations conducted under part 91 should be consistent with the relief permitted in § 91.609. Consequently, the FAA is evaluating a change to the preamble to the MMEL for operations conducted solely under part 91 of the FAR.

Comment

One commenter states that the interim rule unfairly penalizes corporate operators that also operate under a part 135 operating certificate, because these operators are not allowed the extra 15 days.

FAA Response

The FAA has determined that most holders of air carrier or commercial

operator certificates have greater maintenance capabilities than part 91 operators. Additionally, the level of safety required for operators carrying passengers or property for compensation or hire is much higher. The FAA finds that the requested additional relief is not in the public interest. Accordingly, the FAA has determined that providing additional relief to holders of air carrier or commercial operating certificates is not appropriate.

Additional Relief

Although the relief provided by this rule for part 91 operators is not identical to that provided for air carriers and commercial operators, the FAA has had to consider that part 91 operators do not normally have the maintenance, repair, and replacement capabilities that air carriers and commercial operators have. Part 91 operators normally have only one maintenance base, whereas air carriers and commercial operators normally have numerous maintenance bases at which their FR's and CVR's may be repaired or replaced. Air carriers' and commercial operators' maintenance bases normally have a ready supply of spare parts for repairing or replacing FR's and CVR's. Air carriers and commercial operators normally have a larger fleet of aircraft in which the FR's and CVR's can be moved from one aircraft to another. Part 91 operators, however, normally have only one or two aircraft. Without the relief provided by this rule, if an FR or CVR becomes inoperative on a part 91 aircraft, the aircraft could not be operated. The FAA has determined that this grounding is not necessary and that the possible operational and financial burden on these operators is unacceptable. The relief provided for part 91 operators by this amendment is reasonable. The FAA does not anticipate that a large number of aircraft will be flying without a functioning FR and/or CVR at any specified time. Further, and in view of the safety record of multiengine, turbine-powered airplanes, the probability of one of these airplanes being involved in an accident during the allowable period is small.

Other Changes

The interim rule allows an operator to operate an aircraft for not more than 15 days with the FR and/or CVR inoperative. The change also permits aircraft to be operated for an additional 15 days (for a total of 30 days) provided that certification is made in the aircraft maintenance records that additional time is required to complete repairs or obtain a replacement unit. This

certification, as stated in the interim rule, must be made by a certificated pilot or mechanic. The FAA has re-evaluated the wording of the interim rule and determined that allowing this certification to be made only by a certificated pilot or mechanic was overly restrictive. For example, it did not allow certificated repair stations to make the certification in the maintenance records to return the aircraft to service with an FR and/or CVR inoperative or removed for repair. Consequently, in this final rule, the word "mechanic" has been changed to "certificated person authorized to return an aircraft to service under § 43.7 of this chapter."

Benefit/Cost Comparison

Executive Order 12291, dated February 17, 1981, directs Federal Agencies to promulgate new regulations or modify existing regulations only if the potential benefits to society for each proposed change outweigh potential costs. Accordingly, the FAA has examined the benefits of this final rule in an effort to identify and quantify benefits and costs. As a result of that examination, the agency has determined that the benefits of this rule are positive, but minimal, and that the costs are negligible.

The major benefit of this final rule is that part 91 operators will not be required to land immediately upon the loss of an FR or CVR, nor will they be prevented from ferrying an aircraft to a location where such equipment can be repaired or installed. As indicated above, the operational and financial burden of being prevented from operating due to the lack of a functioning FR or CVR is unduly burdensome for part 91 operators. As a practical matter, it is reasonable to provide time to repair or replace malfunctioning equipment. Based on information provided by manufacturers and repair facilities, this rule provides sufficient time for equipment to be repaired or replaced in the time provided in virtually all cases. Providing a longer amount of time (such as the 120 days requested in the original petition), could unnecessarily result in the loss of vital safety information in the event of an accident, cannot be justified economically, and is contrary to the underlying purpose of these devices. Furthermore, since the FAA routinely authorizes aircraft to be ferried with an inoperative FR or CVR, another benefit of this amendment is to relieve part 91 operators from having to request individual ferry permits. Therefore, the FAA has determined this final rule will result in a positive but minimal benefit.

With respect to costs, there is a requirement that a placard be located in view of the pilot whenever an FR or CVR is temporarily inoperative or removed for repair. The placard will state that the equipment is not installed or is inoperative. The estimated cost of such a placard is \$25. This cost is considered negligible when compared to the savings realized by temporarily permitting further flights while the equipment is removed or inoperative.

Another potential cost is that, in the event of an accident, an inoperative FR or CVR would not be available to provide information to assist in determining the cause of the accident. However, the FAA estimates that few aircraft will be flying at any specific time without a functioning FR or CVR. Furthermore, the probability of one of these aircraft being involved in an accident during the allowable time is extremely small. Accordingly, the potential cost is estimated to be negligible and acceptable to the FAA. Also, since most flights that are affected by this final rule could fly under a ferry permit in the absence of this rule, the incremental cost of allowing flights without a ferry permit is even less.

The FAA has determined that this final rule is cost-beneficial, but because both benefits and costs are found to be minimal, a regulatory evaluation was not prepared for placement in the docket.

International Trade Impact Analysis

The FAA finds that the negligible costs that may be imposed by this final rule will not have an impact on international trade, since it would be applicable to all airplanes operating under part 91.

Regulatory Flexibility Act Determination

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) (RFA) was enacted to ensure that small entities are not unnecessarily or disproportionately burdened by government regulations. The RFA requires a Regulatory Flexibility Analysis if a rule has a significant economic impact, either detrimental or beneficial, on a substantial number of small entities. FAA Order 2100.14A, "Regulatory Flexibility Criteria and Guidance," establishes threshold cost values and small entity size standards for complying with RFA review requirements in FAA rulemaking actions.

The small entities that could be affected by this rule are part 91 operators with nine or fewer aircraft. An operator with nine aircraft each with the FR or CVR out for repair would be

required to buy a total of nine placards at \$25 each for a total cost of \$225. This cost is well below the \$3300 threshold cost for unscheduled aircraft operators shown in FAA Order 2100.14A. Therefore, the FAA has determined that this final rule will not have a significant economic impact on a substantial number of small entities and that a Regulatory Flexibility Analysis is not required.

Federalism Implications

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant preparation of a Federalism Assessment.

Paperwork Reduction Act

There are no requirements for information collection associated with this rule.

Conclusion

This final rule replaces the interim rule that expires April 13, 1992. The public has been given an opportunity to comment on the interim rule, and a review of the comments received indicated that the public favors the rule as written. The FAA has determined that it is in the public interest to continue the relief provided by the interim rule without interruption. Accordingly, the FAA has determined that good cause exists for making this final rule effective in fewer than 30 days.

For the reasons discussed in the preamble, the FAA has determined that this final rule is not major under Executive Order 12291. However, it is significant under the Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979) due to substantial public interest. I certify that under the criteria of the Regulatory Flexibility Act this amendment will not have a significant economic impact, positive or negative, on a substantial number of small entities.

List of Subjects in 14 CFR Part 91

Aircraft, Aviation safety, Safety.

The Amendment

In consideration of the foregoing, 14 CFR part 91 of the Federal Aviation Regulations is amended as follows:

PART 91—GENERAL OPERATING AND FLIGHT RULES

1. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502 1510, 1522, and 2121 through 2125; 49 U.S.C. App. 2157, 2158; Articles 12, 29, 31, and 32(a) of the Convention on International Civil Aviation (61 Stat. 1180); 42 U.S.C. 4321 *et seq.*; E.O. 11514; 49 U.S.C. 106(g).

2. Section 91.609 is amended by adding a new paragraph (b) to read as follows:

§ 91.609 Flight recorders and cockpit voice recorders.

(b) Notwithstanding paragraphs (c) and (e) of this section, an operator other than the holder of an air carrier or a commercial operator certificate may—

(1) Ferry an aircraft with an inoperative flight recorder or cockpit voice recorder from a place where repair or replacement cannot be made to a place where they can be made;

(2) Continue a flight as originally planned if the flight recorder or cockpit voice recorder becomes inoperative after the aircraft has taken off;

(3) Conduct an airworthiness flight test during which the flight recorder or cockpit voice recorder is turned off to test it or to test any communications or electrical equipment installed in the aircraft;

(4) Ferry a newly acquired aircraft from a place where possession of it was taken to a place where the flight recorder or cockpit voice recorder is to be installed; or

(5) Operate an aircraft:

(i) For not more than 15 days while the flight recorder and/or cockpit voice recorder is inoperative and/or removed

for repair provided that the aircraft maintenance records contain an entry that indicates the date of failure, and a placard is located in view of the pilot to show that the flight recorder or cockpit voice recorder is inoperative.

(ii) For not more than an additional 15 days, provided that the requirements in paragraph (b)(5)(i) are met and that a certificated pilot, or a certificated person authorized to return an aircraft to service under § 43.7 of this chapter, certifies in the aircraft maintenance records that additional time is required to complete repairs or obtain a replacement unit.

Issued in Washington, DC, on April 22, 1992.

Barry Lambert Harris,
Acting Administrator.

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