

custodians of Roth IRAs and Education IRAs of unnecessary restrictions, NCUA makes this final rule retroactively effective as of January 1, 1998. 5 U.S.C. 553(d)(1).

The remaining two commenters requested NCUA to amend or otherwise provide clarification regarding the authority of federal credit unions to act as trustees and custodians of state and federal Medical Savings Accounts (MSAs). One of these commenters also indicated its preference for NCUA to move forward in this regard with a request for comment, rather than an advanced notice of proposed rulemaking. As indicated in the interim final rule, NCUA requested comment pertaining only to Roth IRAs and Education IRAs. NCUA made a request for comment in this manner because to amend part 724 and part 701 to address MSAs would entail extensive modifications or possibly a new rule and would unduly delay satisfying the more immediate need to implement the final amendments pertaining to Roth IRAs and Education IRAs. The NCUA agrees with the commenters that the role of federal credit unions with respect to the administration of MSAs is an issue that warrants regulatory review and intends to conduct such a review in a timely fashion.

In summary, NCUA is adopting the interim final amendments in final, without any changes, except to make such amendments effective as of January 1, 1998.

Regulatory Procedures

Regulatory Flexibility Act

This final rule conforms the current regulation to recent changes in the federal tax law and does not expand upon the nature of the activity authorized for federal credit unions. The Board has determined and certifies that this rule will not have a significant economic impact on a substantial number of small credit unions. Accordingly, NCUA has determined that a Regulatory Flexibility Analysis is not required.

Paperwork Reduction Act

This final rule does not impose any paperwork requirements.

Executive Order 12612

This final rule only applies to federal credit unions. It has no effect on the regulation of state-chartered credit unions.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act of 1996 (Pub.

L. 104-121) provides generally for congressional review of agency rules. A reporting requirement is triggered in instances where NCUA issues a final rule as defined by Section 551 of the Administrative Procedures Act. 5 U.S.C. 551. The Office of Management and Budget has reviewed this rule and has determined that for purposes of the Small Business Regulatory Enforcement Fairness Act of 1996 this is not a major rule.

List of Subjects

12 CFR Part 701

Credit unions.

12 CFR Part 724

Credit unions, Pensions, Reporting and recordkeeping requirements, Trusts and trustees.

By the National Credit Union Administration Board, this 23rd day of September, 1998.

Becky Baker,
Secretary, NCUA Board.

For the reasons stated above and in the interim final rule, NCUA amends 12 CFR chapter VII as follows:

PART 701—ORGANIZATION AND OPERATION OF FEDERAL CREDIT UNIONS

1. The authority citation for part 701 continues to read as follows:

Authority: 12 U.S.C. 1752(5), 1755, 1756, 1757, 1759, 1761a, 1761b, 1766, 1767, 1782, 1784, 1787, 1789. Section 701.6 is also authorized by 15 U.S.C. 3717. Section 701.31 is also authorized by 15 U.S.C. 1601 *et seq.*; 42 U.S.C. 1981 and 3601-3610. Section 701.35 is also authorized by 42 U.S.C. 4311-4312.

2. Revise the second sentence of § 701.19(a) to read as follows:

§ 701.19 Retirement benefits for employees of Federal credit unions.

(a) * * * In those cases where a Federal credit union is to be a plan trustee or custodian, the plan must be authorized and maintained in accordance with the provisions of Part 724 of this chapter. * * *

* * * * *

PART 724—TRUSTEES AND CUSTODIANS OF PENSION PLANS

3. The authority citation for part 724 is revised to read as follows:

Authority: 12 U.S.C. 1757, 1765, 1766 and 1787.

4. In § 724.1, revise the section heading and first sentence to read as follows:

§ 724.1 Federal credit unions acting as trustees and custodians of pension and retirement plans.

A Federal credit union is authorized to act as trustee or custodian, and may receive reasonable compensation for so acting, under any written trust instrument or custodial agreement created or organized in the United States and forming part of a pension or retirement plan which qualifies or qualified for specific tax treatment under sections 401(d), 408, 408A and 530 of the Internal Revenue Code (26 U.S.C. 401(d), 408, 408A and 530), for its members or groups of its members, provided the funds of such plans are invested in share accounts or share certificate accounts of the Federal credit union. * * *

[FR Doc. 98-26114 Filed 9-29-98; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-NM-272-AD; Amendment 39-10808; AD 98-20-40]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-100, -200, -300, SP, and SR Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to all Boeing Model 747-100, -200, -300, SP, and SR series airplanes, that requires the installation of shielding and separation of the electrical wiring of the fuel quantity indication system (FQIS). This amendment is prompted by a failure analysis of the FQIS, and by testing results, which revealed that excessive energy levels in the electrical wiring and probes of the fuel system could be induced by electrical transients. The actions specified by this AD are intended to prevent electrical transients, induced by electromagnetic interference (EMI), or electrical short circuit conditions from causing arcing of the FQIS electrical wiring or probes in the fuel tank(s). Such arcing could result in ignition of the fuel tank(s).

EFFECTIVE DATE: November 4, 1998.

ADDRESSES: Information pertaining to this amendment may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules

Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Chris Hartonas, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2864; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all Boeing 747-100, -200, and -300 series airplanes was published in the **Federal Register** on December 1, 1997 (62 FR 63624). [An action to reopen the comment period for the proposal was issued on March 23, 1998 (63 FR 14850, March 27, 1998).] That action proposed to require the installation of components for the suppression of electrical transients and/or the installation of shielding and separation of the electrical wiring of the fuel quantity indication system (FQIS).

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for the Proposal

Two commenters support the proposed rule.

Request To Withdraw Proposed AD: Lack of Evidence

Three commenters, including the manufacturer, state that the proposed AD should be withdrawn or significantly delayed, based on the lack of conclusive evidence that the Trans World Airlines Flight 800 accident on July 17, 1996 (hereinafter referred to as TWA Flight 800), which involved a Model 747-100 series airplane, was caused by failure of the FQIS components and wiring that is routed to the tanks. In addition, the manufacturer comments extensively on the features of the existing system that are intended to prevent an ignition source from existing in the fuel tanks due to FQIS wiring or component failures. The manufacturer further comments that it believes that the current design of the FQIS is safe in the originally delivered configuration, when it is maintained in accordance with the manufacturer's approved maintenance documents. The manufacturer states that multiple failures within the FQIS would be required to create an ignition source within a fuel tank.

The FAA does not concur that the proposed AD should be withdrawn or delayed. The FAA agrees that no conclusive evidence exists that failure of the FQIS components or wiring that is routed to the tanks caused the TWA Flight 800 airplane accident. However, during such accidents, evidence that could lead to a conclusive identification of the cause of the accident is often destroyed. Even without the destruction caused by the accident, there often is no specific physical evidence of low-energy electrical arcing. In addition, in consideration of the amount of wiring installed on a Boeing Model 747 series airplane, and in consideration of the amount of damage to the wiring that occurred during the airplane fire, breakup, and subsequent recovery, conclusive identification of a specific wire that was damaged before the fire and breakup is extremely unlikely.

Following the determination that a fire in the center wing fuel tank of the TWA Flight 800 airplane was the initial event in the airplane breakup, and the determination that the fire was not caused by an external source such as a bomb or missile, the National Transportation Safety Board (NTSB) has necessarily used systems analysis methods to determine what systems on the airplane are most likely to have been the source of ignition energy. That analysis included an examination of system failure modes and effects, an examination of service history, and examinations of similar airplanes. It was that analysis that led the FAA to propose the requirements specified in the notice of proposed rulemaking (NPRM).

In commenting on the specific design features of the FQIS on Model 747 series airplanes, the manufacturer points out that multiple independent failures would be required to create an FQIS-related ignition source in the fuel tank, implying that such an event is therefore impossible. The FAA agrees that more than one failure would be required to create an ignition source inside the fuel tank. The fact that fuel tank explosions on Model 747 series airplanes have been rare would seem to support a claim that single failures have not been the cause of fuel tank explosions. However, during the accident investigation, the FQIS safety analysis and the examinations of Model 747 series airplanes performed by the NTSB revealed several scenarios where a combination of a latent failure or aging condition within the fuel tank and a subsequent single failure or electrical interference condition outside the tank can cause an ignition source to occur inside a fuel tank.

Examples of these in-tank and out-of-tank conditions that can contribute to a multiple-failure ignition scenario were found in airplane service records and on airplanes that were inspected by the FAA and the NTSB. Various center wing fuel tanks were found with conductive debris in the tanks, damaged FQIS wire insulation at the fuel probes, and contamination of probes and in-tank wiring by conductive copper/sulfur or silver/sulfur films. Each of these conditions can create latent potential ignition locations inside the fuel tank.

In addition, several conditions have been identified that can lead to sufficient energy in the FQIS wiring to create an ignition source if combined with one of the latent conditions described above. For example, electromagnetic coupling between systems routed together in bundles can occur. In addition, direct short circuit conditions can occur in wire bundles containing FQIS wiring. Airplanes were found with aluminum drill shavings on and inside various wire bundles in several locations between the flight deck and the fuel tank. Such shavings can, with vibration or other motion, cut through wire insulation and provide a conductive path between wires in a bundle. Service history contains records of wire bundle fires, which may have been due to such conditions. An examination of one wire bundle involved in such a fire revealed the presence of aluminum globules, presumably from molten shavings.

The manufacturer also stated that, if a failure in a wire bundle involving the FQIS were to occur, the FQIS indications would be affected and the failure would be noted and repaired. No arc would be created inside the fuel tank due to the inherently safe design of the in-tank components and wiring. The FAA does not agree. If one of the latent in-tank conditions discussed above existed on the accident airplane, the first indication of a wire bundle failure or electromagnetic interference (EMI) event outside the tank may have been ignition of the fuel vapor in the tank. In the minutes immediately preceding the in-flight breakup of the TWA Flight 800 airplane, the cockpit voice recorder indicates that the crew noticed a fuel flow indicator that was providing erratic indications. Such indications could have been due to a failure occurring in a wire bundle. The NTSB investigation determined that the fuel flow indicator wiring was routed in the same wire bundle as FQIS wiring on the TWA Flight 800 airplane.

An examination of the service history for transport category airplanes on which shielding and separation of the

FQIS wiring from other systems have been incorporated has shown that fewer fuel tank fire/explosion events have occurred (a tabulation of transport airplane fuel tank fires was included in the FAA Notice of Request for Comments on NTSB Safety Recommendations published in the **Federal Register** on April 3, 1997 (62 FR 16014)). The two most recent fuel tank explosion accidents—a Boeing Model 737-300 series airplane operated by Philippine Airlines in 1990, and a Boeing Model 747-100 series airplane operated as TWA Flight 800 in 1996—remain unsolved, and both airplane types follow the wiring practices addressed by this rule.

Therefore, the FAA has determined that, to address the potential for fuel tank ignition due to a latent failure plus one subsequent failure, the type design of the Model 747 series airplane must be brought up to the same wiring standards as other transport category airplanes certificated during the same time period that the Model 747 series airplane was certificated. (Similar rulemaking has been proposed for Model 737 series airplanes. Reference Rules Docket No. 98-NM-50-AD (63 FR 38524, April 22, 1998).) No change to this final rule is necessary.

Request To Withdraw Proposed AD: Inaccurate Test Results

Four commenters state that the proposed AD should be withdrawn and the problem studied further. The commenters claim that the results of laboratory EMI testing performed by the manufacturer are not representative of actual conditions on an airplane.

These commenters further state that results of additional testing performed by the manufacturer on an airplane did not agree with the findings obtained in the laboratory, and showed much lower levels of electromagnetic coupling between the FQIS and other systems on the airplane. The FAA does not concur that the proposed AD should be withdrawn. The laboratory testing performed by the manufacturer was based on an industry-accepted procedure (FAA Advisory Circular 21-16C, "Radio Technical Commission for Aeronautics" Document DO-160C). The test set-up and procedure re-create a well-known electrical transient event resulting from switching of airplane electrical systems.

The industry-accepted test set-up and procedure were developed by industry with key support from the manufacturer, and were based, in part, on data provided by the manufacturer for typical switching transients on the manufacturer's airplanes.

Also, the FAA has determined that the test procedures used during the manufacturer's airplane test were not representative of all the possible conditions on an airplane in operation. The test was performed on an out-of-service airplane with only some of the relevant systems powered and switched. No attempt was made to represent any system failure conditions or compromised shielding/grounding provisions on the systems that were powered and switched. Also, because of the way airplane wire bundles are manufactured and installed, significant variation in levels of coupling among systems has been seen in the past and would be expected on Model 747 series airplanes.

Moreover, the FAA's determination of the existence of an unsafe condition is not wholly dependent on the results of the tests discussed above. In the FQIS system safety analysis and airplane inspections performed by the NTSB, several tank ignition scenarios were identified involving a combination of a latent failure or aging condition inside the fuel tank and a subsequent failure or electromagnetic coupling outside the tank. Various FAA and NTSB activities identified actual examples of, or the specific potential for, each of those types of contributing conditions. The FAA has proposed a separate AD action to address contributing in-tank failure or aging conditions that have been identified. [Reference Rules Docket No. 98-NM-163-AD (63 FR 39765, dated July 24, 1998).] This final rule is intended to address the out-of-tank contributing conditions that could lead to tank ignition.

By requiring "best practices" to be used both inside the tank (to eliminate the possibility for the creation of latent "spark-gap" locations in the event of high voltage on the FQIS wires) and outside the tank (to avoid introduction of ignition energy onto the FQIS wires), the FAA believes that the FQIS design of the Model 747 series airplane will meet appropriate fail-safe standards. The modified design will then provide the level of safety (i.e., tank ignition events should never occur) intended by the regulations in place at the time of original certification of the design, and the unsafe condition will be eliminated from this threat. No change to the final rule is necessary.

Request To Withdraw Proposed AD: Potential for Other Safety Problems

Seven commenters state that the proposed rule should be withdrawn and the need for the rule should be studied further. The commenters are concerned that the proposed changes may

introduce other unforeseen problems onto an airplane that has an excellent safety record. The commenters are specifically concerned about transient suppression devices reducing the accuracy of the FQIS and the replacement of wiring causing damage to remaining wiring on older airplanes. These commenters also express concern that transient suppression devices could have latent failure conditions under which electrical transients would not be suppressed, and therefore would require added repetitive inspections or tests.

The FAA does not concur that the proposed AD should be withdrawn. However, the FAA agrees with comments from the manufacturer and one of the operators that the use of transient suppression devices to perform a critical function of preventing tank ignition is new, and that the industry should be cautious in exploring that option. Therefore, the FAA is not including a requirement for the incorporation of such devices in the final rule. The FAA instead is requiring that the FQIS wiring be shielded and separated from other wiring, as explained previously. This requirement is merely a subset of those requirements specified in the proposed AD. The modified wiring configuration proposed by the manufacturer caps and stows the existing wiring and requires the new wiring to be installed as a separate bundle in most parts of the airplane. This method minimizes the disturbance of existing wiring, which reduces the likelihood that additional problems will be caused by the modification of the FQIS wiring. The FAA has revised the final rule to eliminate the proposed requirement for installation of transient suppression devices.

Request To Delay Issuance of the AD: Make Service Information Available

Two commenters, including the manufacturer of FQIS components, state that the proposed AD should not be issued until service information to accomplish the required actions is available from the manufacturer. These commenters state that the cost of the proposed rule could not be assessed accurately in the absence of service information, and that a significant portion of the proposed compliance time would be used up in the preparation of service information.

The FAA does not concur. The FAA does not consider that delaying this action until after the release of the service bulletin planned by the manufacturer is warranted because sufficient technology currently exists to devise and install the required features within the compliance time. However,

paragraph (a) of the final rule has been revised to allow 36 months for the modification of airplanes. The extension of the compliance time afforded by this change is intended to allow sufficient time for the preparation of a manufacturer's service bulletin and for the subsequent modification of the affected airplanes during scheduled maintenance. The FAA has determined that this extension of the compliance time will not have a significant adverse effect on the safety of the fleet of Model 747 series airplanes.

At the time the NPRM was issued, the manufacturer had not prepared service information with specific cost information; the FAA estimated the costs based on similar modifications accomplished previously on other airplane models. The cost estimate has been revised based on information provided by the manufacturer, as discussed below.

Request To Delay Issuance of the AD Until a Meeting Is Held

One commenter states that the rule should be withdrawn or delayed until a meeting can be held among representatives of operators, manufacturers, and the FAA. The FAA does not concur. The commenter provided no technical justification for the proposed delay. As indicated previously, the compliance time has been extended from 12 months, as proposed, to 36 months in this final rule. To delay this action further would be inappropriate, since the FAA has determined that an unsafe condition exists and that affected airplanes must be modified to ensure continued safety. No change to the AD is necessary.

Request To Extend Compliance Time

Seven commenters, including the manufacturer, a vendor of transient suppression systems, and several operators, state that a longer compliance time should be allowed to allow modification of airplanes during heavy maintenance activities scheduled previously and to allow time for service information to be prepared. The manufacturer states that 18 to 24 months would be required to prepare service information.

The FAA concurs partially. Although, as explained previously, the FAA does not agree that 18 to 24 months would be required solely to prepare service information, the FAA does agree that schedule interruptions should be minimized in performing the modifications to the Model 747 series airplane fleet. The FAA has attempted to determine a compliance time that provides for the most timely

modification possible without causing unnecessary schedule interruptions. As stated previously, the FAA has revised paragraph (a) of the final rule to extend the compliance time to 36 months for accomplishment of the modification. This compliance time is expected to allow sufficient time for preparation of service information, and for the affected airplanes to be modified during scheduled "C" or "D" checks.

Preference for a Specific Design Solution

Three commenters, including the manufacturer, propose no specific change to the rule, but state a preference for a particular design change to address the unsafe condition. The manufacturer states that it believes that wire separation and shielding is currently the preferable solution because of concerns about transient suppression devices reducing the accuracy of the fuel quantity indication and concerns about those devices having latent failure conditions under which electrical transients would not be suppressed. Another commenter, an operator, prefers that transient suppression alone be used because it would be less costly and disruptive to install. A specific technical and marketing proposal for transient suppression devices was submitted by a vendor of such devices for other types of installations.

The FAA infers that the commenters request that a particular design be required rather than offering optional methods of compliance. The FAA concurs partially. As discussed previously, the FAA agrees that wire separation and shielding provide the preferred design solution. Based on comments from the manufacturer and on its own further analysis, the FAA has determined that transient suppression devices alone may not meet the intent of the rule. The FAA has concerns that transient suppression devices may have latent failure modes that render the transient suppression function inoperative, or may have failure modes that may allow introduction of high voltage signals into the fuel tank that otherwise would not have occurred.

Based on the comments and the FAA's concerns, paragraph (a) of the final rule has been revised to eliminate the general requirement for transient suppression. Operators that have specific design changes other than those required by the AD that may provide an acceptable level of safety may request approval of an alternative method of compliance in accordance with paragraph (b) of the AD.

Request for Inclusion of Optional Method of Compliance

Three commenters suggest that the installation of a BFGoodrich Aerospace FQIS be allowed as an optional method of compliance in the proposed AD. The commenters state that the BFGoodrich system, already approved by a Supplemental Type Certificate and installed on approximately 75 airplanes, incorporates shielding and separation of the FQIS wiring from the wiring for other airplane systems.

The FAA does not concur. Until specific design data are reviewed, the FAA cannot determine whether the BFGoodrich design should be approved as an alternative method of compliance. To delay this action while the FAA reviews the BFGoodrich design would be inappropriate, since the FAA has determined that an unsafe condition exists and that affected airplanes must be modified to ensure continued safety. Interested operators may request approval of an alternative method of compliance in accordance with the provisions of paragraph (b) of the AD. No change to the final rule is necessary.

Request To Revise Cost Estimate of the Proposed AD

Three commenters propose no specific change to the rule, but disagree with the cost estimate in the proposed rule, and offer differing specific cost estimates. One commenter, an operator, states that at least 200 work hours per airplane would be required to perform the proposed modification, and even more hours would be required if the FQIS wire routing is changed significantly. A vendor of FQIS's states that, based on its own experience retrofitting such systems in Model 747 series airplanes, 600 to 1,200 work hours per airplane would be required to perform the proposed modifications. The manufacturer states that 450 work hours and \$9,000 for parts would be required to separate and shield the FQIS wiring, and that 16 to 24 work hours and \$25,000 for parts would be required to install transient suppression devices.

The FAA infers that the commenters are requesting revision of the cost impact information of the AD. The FAA concurs. At the time the NPRM was issued, the manufacturer had not prepared service information with specific cost information. The FAA made an estimate of the costs based on similar modifications accomplished previously on other airplane models. The cost estimate in this final rule has been revised based on information provided by the manufacturer, and now reflects that modification of affected

Model 747 series airplanes to install shielded FQIS wiring and to separate the FQIS wiring from other wiring is expected to require 450 work hours and \$9,000 for parts.

Request for Clarification of Affected Fuel Tanks

One commenter states that the proposed AD refers only to fuel tanks and is not clear as to whether it is intended to apply to all fuel tanks or just the center wing fuel tank. The FAA concurs that clarification is necessary, and has changed the final rule to clearly indicate that it is applicable to all fuel tanks.

Clarification of Systems Affected

Since the issuance of the NPRM, the FAA recognized that the proposed AD may be unclear with respect to which electrical circuits were intended to be affected by the proposed AD. The FAA considers the FQIS wiring to include all electrical circuits associated with the control or indication of the fuel quantity on the airplane. This would include, but is not limited to, the FQIS tank probe circuits, the volumetric shutoff compensator circuits, densitometer circuits, and float switch circuits. The term "circuits" is considered by the FAA to include airplane wiring as well as wiring within components. No change to the final rule is necessary.

Clarification of Airplane Models Affected

The NPRM indicated that the airplanes affected by the proposed AD were Boeing Model 747-100, -200, and -300 series airplanes. The proposed AD was intended to apply to all Boeing Model 747 series airplanes that do not have shielded and separated FQIS wiring, including the 747SR and 747SP series airplanes. The estimate of the affected fleet size that was provided in the NPRM included those airplanes, which many, including the manufacturer, consider to be part of the Model 747-100 series. Those models are listed separately on the Model 747 Type Certificate Data Sheet. Therefore, in order to clarify that this AD does apply to those models, the final rule has been revised to list the affected airplanes as Boeing Model 747-100, -200, -300, SP, and SR series.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will

neither significantly increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 650 Model 747-100, -200, -300, SP, and SR series airplanes of the affected design in the worldwide fleet. The FAA estimates that 202 airplanes of U.S. registry will be affected by this AD, that it will take approximately 450 work hours per airplane to accomplish the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$9,000 per airplane. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$7,272,000, or \$36,000 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

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 the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the

Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

98-20-40 Boeing: Amendment 39-10808. Docket 97-NM-272-AD.

Applicability: All Model 747-100, -200, -300, -SP, and -SR series airplanes, certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent electrical transients induced by electromagnetic interference (EMI) or electrical short circuit conditions from causing arcing of the fuel quantity indication system (FQIS) electrical wiring or probes in the fuel tank(s), which could result in ignition of the fuel tank(s), accomplish the following:

(a) Within 36 months after the effective date of this AD, replace all of the FQIS wiring outside of the fuel tanks and surge tank with shielded wiring, and install that wiring so as to provide separation of that wiring from other airplane systems wiring, in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on November 4, 1998.

Issued in Renton, Washington, on September 23, 1998.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-25972 Filed 9-29-98; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-NM-254-AD; Amendment 39-10751; AD 98-19-09]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-100, -200, -300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to all Boeing Model 737-100, -200, -300, -400, and -500 series airplanes, that currently requires removal of the fuel boost pump wiring in the conduits of the wing and center fuel tanks; an inspection to detect damage of the wiring, and corrective action, if necessary; and eventual installation of Teflon sleeving over the electrical cable. That AD was prompted by reports of severe wear of the fuel boost pump wiring due to chafing between the wiring and the surrounding conduit inside the fuel tank; pin-hole-sized holes in the conduit that appear to be the result of arc-through of the conduit; and exposure of the main tank boost pump wire conductor inside a conduit and signs of arcing to the wall of the conduit. This amendment expands the inspection requirement to include additional airplanes. The actions specified by this AD are intended to detect and correct chafing and electrical arcing between the fuel boost pump wiring and the surrounding conduit, which, if not corrected, could result in arc-through of the conduit, and consequent fire or explosion of the fuel tank.

DATES: Effective October 15, 1998.

The incorporation by reference of Boeing Alert Service Bulletin 737-28A1120, dated April 24, 1998, as revised by Notices of Status Change NSC 01, dated May 7, 1998, NSC 02, dated May 8, 1998, and NSC 03, dated May 9, 1998, as listed in the regulations,

was previously approved by the Director of the Federal Register on June 29, 1998.

The incorporation by reference of Boeing Alert Service Bulletin 737-28A1120, Revision 1, dated May 28, 1998, as listed in the regulations, is approved by the Director of the Federal Register as of October 15, 1998.

Comments for inclusion in the Rules Docket must be received on or before November 30, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 98-NM-254-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Dorr Anderson, Aerospace Engineer, Propulsion Branch, ANM-140S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2684; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: On June 12, 1998, the FAA issued AD 98-11-52, amendment 39-10611 (63 FR 34271, June 24, 1998), applicable to all Boeing Model 737-100, -200, -300, -400, and -500 series airplanes, to require removal of the fuel boost pump wiring in the conduits of the wing and center fuel tanks; an inspection to detect damage of the wiring, and corrective action, if necessary; and eventual installation of Teflon sleeving over the electrical cable. That action was prompted by reports of severe wear of the fuel boost pump wiring due to chafing between the wiring and the surrounding conduit inside the fuel tank; pin-hole-sized holes in the conduit that appear to be the result of arc-through of the conduit; and exposure of the main tank boost pump wire conductor inside a conduit and signs of arcing to the wall of the conduit. The actions required by that AD are intended to detect and correct chafing and electrical arcing between the fuel boost pump wiring and the surrounding conduit, which, if not corrected, could result in arc-through of the conduit, and consequent fire or explosion of the fuel tank.

Actions Since Issuance of Previous Rule

Since the issuance of that AD, the FAA has received reports of severe chafing of the boost pump wiring (with wear of the primary wire insulation between 40 percent and 80 percent) on Boeing Model 737 series airplanes that had accumulated between 29,000 and 35,000 total flight hours. Some of these airplanes had accumulated fewer flight hours than the number of flight hours specified as the inspection threshold in AD 98-11-52.

In light of these findings, the FAA has determined that it is necessary to expand the inspection requirement to include airplanes that have accumulated between 20,000 and 30,000 total flight hours. This is necessary to ensure that these airplanes have not also developed a problem with chafing and electrical arcing between the fuel boost pump wiring and the surrounding conduit.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-28A1120, Revision 1, dated May 28, 1998. The procedures for inspecting the fuel boost pump wiring and installing Teflon sleeving are essentially identical to the procedures described in the original version of the alert service bulletin (referenced in AD 98-11-52). The only change effected by Revision 1 is to provide information concerning revised rework instructions and optional parts and procedures.

Explanation of Requirements of Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of this same type design, this AD supersedes AD 98-11-52 to continue to require removal of the fuel boost pump wiring in the conduits of the wing and center fuel tanks; an inspection to detect damage of the wiring, and corrective action, if necessary; and eventual installation of Teflon sleeving over the electrical cable. This AD expands the inspection requirement to include airplanes that have accumulated between 20,000 and 30,000 total flight hours. The actions are required to be accomplished in accordance with the alert service bulletin described previously. This AD also requires that operators report findings of discrepancies to the manufacturer.

Possible Future Rulemaking Action

The FAA currently is considering further rulemaking action that would supersede this action to additionally require inspection of Model 737 series airplanes that have accumulated less