failures are not addressed by the requirements of part 35. These failures can lead to the following possible hazardous conditions:

(1) Loss of control of the propeller,

(2) Instability of a critical function,

(3) Unwanted change in propeller pitch causing improper thrust/overspeed, and

(4) Unwanted action of a critical control function resulting in propeller flat pitch or reverse.

Certification issues that must be addressed are possible loss of aircraft-supplied electrical power, aircraft supplied data, failure modes, environmental effects including lightning strike sand high intensity radiated fields (HIRF) and software design.

The FAA finds that under the provisions of § 21.16 of the FAR, additional safety standards must be applied to the Hamilton Standard electronic propeller control for Model 568F propellers to demonstrate that it is capable of acceptable operation.

Type Certification Basis

Under the provisions of § 21.17 of the FAR, Hamilton Standard must show that the Model 568F propeller meets the requirements of the applicable regulations in effect on the date of the application. Those FAR's are § 21.21 and part 35, effective February 1, 1965, as amended.

The Administrator finds that the applicable airworthiness regulations in part 35, as amended, do not contain adequate or appropriate safety standards for the Model 568F propeller. Therefore, the Administrator prescribes special conditions under the provisions of § 21.16 to establish a level of safety equivalent to that established in the regulations.

Special conditions, as appropriate, are issued in accordance with §11.49 of the FAR's after public notice and opportunity for comment, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 21.101(b)(2).

Discussion of Comments

Interested persons have been afforded the opportunity to participate in the making of these special conditions. Due consideration has been given to the comments received.

One commenter states concern that the term ''unacceptable change'' is vague and could lead to multiple interpretations if the term was not defined in the special condition.

The FAA agrees, and the term ''unacceptable change'' has been removed from the text and replaced with the term ''hazardous'', which is defined in the special condition.

The commenter also states concern with system redundancy and states that FAR 25.1309, its associated Advisory Circular and a Failure Modes Effects Analysis should be included in the special conditions.

The FAA disagrees. The special condition as written in paragraph (a)(2) addresses the commenter's concerns by requiring that the propeller be designed and constructed so that no single failure or malfunction, or probable combination of failures of electrical or electronic components of the propeller control system, result in a hazardous condition. Also, the propeller manufacturer includes a Failure Modes Effects Analysis (FMEA) report as part of the data required for propeller certification. This same report is submitted to the airframe manufacturer for incorporation into aircraft certification documentation to show compliance with FAR 25.1309. Therefore, the commenter's concerns are already included in the certification documentation and a special condition is not needed.

After careful review of the available data, including the comments noted above, the FAA determined that air safety and the public interest require the adoption of these special conditions with the changes discussed previously.

Conclusion

This action affects only the Hamilton Standard Model 568F propeller with a new system of electronic propeller and pitch control. It is not a rule of general applicability and affects only the manufacturer who applied to the FAA for approval of these features on the propeller.

List of Subjects in 14 CFR Part 35

Air transportation, Aircraft, Aviation safety, Safety.

The authority citation for these special conditions continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704; 14 CFR 11.28, 21.16.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Federal Aviation Administration (FAA), the following special conditions are issued as part of the type certification basis for the Hamilton Standard Model 568F propeller and pitch control system. Considering that electronic propeller and pitch control systems introduce potential failures that can result in hazardous conditions, the following special conditions are issued.

(a) Each propeller and pitch control system which relies on electrical and electronic means for normal operation must:

(1) Be designed and constructed so that any failure or malfunction of aircraft-supplied power or data will not result in a hazardous change in propeller pitch setting or prevent continued safe operation of the propeller.

(2) Be designed and constructed so that no single failure or malfunction, or probable combination of failures of electrical or electronic components, or mechanical and hydraulic interface of the propeller control system, result in a hazardous condition.

(3) Be tested to its environmental limits including transients (variations) caused by lightning and high intensity radiated fields (HIRF) and demonstrate no adverse effects on the control system operation and performance or resultant damage. These tests shall include, but not be limited to, the following:

(i) Lightning strikes, such as multiple-stroke and multiple-burst;

(ii) Pin-injected tests to appropriate wave forms and levels;

(iii) HIRF susceptibility tests.

(4) Be demonstrated by analysis/tests that associated software is designed and implemented to prevent errors that would result in a hazardous change in propeller pitch or a hazardous condition.

(5) Be designed and constructed so that a failure or malfunction of electrical or electronic components in the propeller control system could not prevent safe operation of any remaining propeller that is installed on the aircraft.

(b) For purposes of these special conditions, a hazardous condition is considered to exist for each of the following conditions:

(1) Loss of control of the propeller,

(2) Instability of a critical function,

(3) Unwanted change in propeller pitch causing improper thrust/overspeed, and

(4) Unwanted action of a critical control function resulting in propeller flat pitch or reverse.

Issued in Burlington, Massachusetts, on December 19, 1995.

James C. Jones,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 96–55 Filed 1–2–96; 8:45 am]

BILLING CODE 4910–13–M

14 CFR Part 39

[Docket No. 95–NM–193–AD; Amendment 39–9479; AD 96–01–03]

Airworthiness Directives; Boeing Model 747–100 and –200 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 747–100 and –200 series airplanes. This action requires a revision of the Airplane Flight Manual (AFM) and of the Airplane Weight and Balance Supplement to restrict the running load and maximum total payload to a suitable level. This amendment is prompted by a determination that these airplanes are incapable of carrying the currently certified payload limits due to the missing external structural doublers located forward of the surround structure of the main deck side cargo door, and deficiencies in the main deck floors. The actions specified in this AD are intended to prevent collapse of the aft fuselage due to inadequate strength in the airplane structure, and subsequent separation of the aft fuselage from the airplane.

DATES: Effective January 30, 1996.

Comments for inclusion in the Rules Docket must be received on or before March 4, 1996.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 95–NM–193–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Information concerning this AD may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Steven Fox, Aerospace Engineer, Airframe Branch, ANM–120S, Seattle Aircraft Certification Office, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (206) 227–2777; fax (206) 227–1181.

SUPPLEMENTARY INFORMATION:

History of Relevant Supplemental Type Certificates (STC)

In 1988, the FAA approved two STC's. The first STC, SA2322SO, modified a Boeing Model 747–100 series airplane from a passenger configuration to a special freighter configuration by adding a main deck side cargo door. In order to install the main deck side cargo door, this modification entailed cutting a 324 square foot hole in the side of the fuselage from body stations 1740 to 1960; however, the STC did not provide for reinforcement of the fuselage skin, forward of the main deck side cargo door. The second STC, SA2323SO, further modified this airplane by adding a cargo floor and changing the associated systems. These modifications were accomplished by the Pemco Corporation. The FAA-approval of these two STC's by the Atlanta Aircraft Certification Office was based on an incorrect finding that the design was identical to the previously FAA-approved modification of the Model 747 special freighter airplanes. Subsequently, these STC's were sold to GATX-Airlog Company, which converted nine more Model 747–100 series airplanes from a passenger configuration to a special freighter configuration in accordance with these two STC's.

In 1994, the GATX-Airlog Company applied for approval of a new STC, SA4227NM-D, to modify a Model 747–200 series airplane from a passenger configuration to a special freighter configuration. The approval of this STC was based on the data that were submitted for the two previous STC's.

Subsequently, the weight and balance limitations for all three of these STC's were modified by STC SA5199NM (for Model 747–100 series airplanes) and STC SA5759NM (for Model 747–200 series airplanes). These new weight and balance limitations increased the cargo payload for airplanes modified to a special freighter configuration in accordance with the three earlier STC's. The GATX-Airlog Company received approval of these latter two STC's based on the assumption that the data submitted for the three earlier STC's were structurally satisfactory and complied with the applicable regulations.

History of Relevant AD's

On December 27, 1994, the FAA issued AD 95–01–04, amendment 39–9115 (60 FR 2005, January 6, 1995), applicable to Model 747–100 series airplanes modified in accordance with STC SA2322SO. That AD requires a one-time detailed visual inspection of the lap joint of stringer 4L from fuselage stations 1660 to 2040 to detect discrepancies (such as corrosion, cracking, open holes, misdrilled holes, and any freeze plugs in the fuselage skin and internal stringer or longerons). That AD also requires that operators submit a report of their findings to the FAA. That AD was prompted by reports of ''hidden'' open fasteners holes in the middle row of the lap joint, as well as misdrilled holes, elongated holes, and ''figure eight'' holes, and short edge margins in the fastener holes of the fuselage skin. These reports were received from operators of Model 747–100 series airplanes that had been modified in accordance with STC SA2322SO. The actions required by AD 95–01–04 are intended to prevent reduced fatigue life of the fuselage in the area in which holes are found.

In response to the reporting requirement of that AD, the FAA received reports of 216 misdrilled, open, or short-edged margin holes that were filled with random fasteners on a single airplane. The FAA has also learned from these reports that the skin lap splice at stringer 4L has had to be replaced on all of the inspected airplanes because of the severity of the discrepancies found during the inspections required by that AD. Further, another operator reported finding five body frames that did not have inner chord attachments installed above the main deck side cargo door. The FAA has received reports of multiple misdrilled fasteners where the main deck floor beams attach to the existing frame of the airplane, which cause the frames to be extremely susceptible to early fatigue failure. The FAA finds that failure of a single frame would not significantly affect the airplane's fail-safe design; however, misdrilled fasteners were found on both sides of most of the fuselage frames. Because the frames on airplanes that have been converted in accordance with the subject STC's have reduced strength due to numerous misdrilled holes, the FAA has determined that failure of any single frame on these airplanes will result in structurally significant higher loads in the adjacent frames.

These manufacturing deficiencies have further reduced the structural capability of these airplanes. Because of the variability of the manufacturing defects and the missing structural components, it is impossible for the FAA to determine the extent of the reduction in the structural capability of these airplanes without re-examining each airplane that was reconfigured in accordance with the subject STC's. Since all of the affected airplanes have not yet been inspected in accordance with the requirements of AD 95–01–04, the FAA has not completed a comprehensive review to determine final corrective action.

On August 3, 1995, the FAA issued AD 95–15–52, amendment 39–9335 (60 FR 40748, August 10, 1995), applicable to Model 747–100 series airplanes

modified in accordance with STC SA2322SO, SA2323SO, or SA5199NM; and Model 747–200 series airplanes modified in accordance with STC SA4227NM–D or SA5759NM. That AD requires a revision of the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) and of the Limitations Section of the Airplane Weight and Balance Supplement to restrict cargo loading from fuselage stations 1265 to 1480 (approximately 200 inches of the center section of the fuselage). That AD provides for the removal of the restrictions following accomplishment of a modification of the longitudinal floor beams of the affected fuselage stations in accordance with a method approved by the FAA. That action was prompted by a determination that the strength in the floor beams was inadequate between fuselage stations 1265 to 1480. The actions specified in that AD are intended to prevent failure of the longitudinal floor beams in the center section of the fuselage, which may cause the keel beam to fail and result in rupture of the fuselage. (This AD did not address any section of the fuselage other than the center section of the fuselage.)

Since the issuance of AD 95–15–52, an operator of Model 747–100 and –200 series airplanes applied for approval of an alternative method of compliance (AMOC) to AD 90–06–06, amendment 39–6490 (55 FR 8374, March 7, 1990). AD 90–06–06, which is applicable to certain Boeing Model 747 airplanes, requires structural modifications of older airplanes, including a requirement to modify the lower lap joints of the fuselage skin. This operator's airplanes were converted from a passenger configuration to a special freighter configuration in accordance with STC's SA2322SO and SA2323SO (for Model 747–100 series airplanes) and SA4227NM–D (for Model 747–200 series airplanes).

The FAA's Findings

An FAA review of the data submitted to approve this AMOC, and an FAA evaluation of the health of the affected airplanes based upon the in-service history of the fleet, have led the FAA to make the following findings: Airplanes modified in accordance with all of the STC's discussed above are unsafe, and the FAA approved these STC's in error. Specifically, the FAA has determined that the ultimate strength of the main deck floor and the ultimate strength of the surround structure of the main deck side cargo door are inadequate.

The floor system lacks stabilization straps that attach to the main deck floor beam lower chord. These stabilization straps would prevent the floor beam lower chord from buckling under ultimate design load conditions. The floor is structurally inadequate without these straps. The main deck floor beams are capable of sustaining approximately three-fourths of the ultimate gust conditions, and have only a small margin for limit gust conditions. Since the failure mode for these floor beams is column buckling instability, there would be no warning prior to collapse of the main deck floor. Consequently, inspections would be ineffective to detect this failure mode prior to collapse of the floor. Therefore, the only immediate option to prevent collapse of the main deck floor during a gust load condition would be to reduce the weight of the cargo on the main deck of the airplane.

Further, the FAA finds that the STC's did not provide needed reinforcement of the fuselage skin, forward of the main deck side cargo door. Such lack of reinforcement results in an unacceptably high concentration of shear and bending stress and the inability to react to various flight maneuver loads.

The FAA finds that the non-reinforced fuselage skin is not structurally capable of sustaining flight maneuvers with a 1.5 ultimate safety factor. For example, the 1.5 ultimate safety factor applied to the 2.5g dive maneuver load condition, requires that the airplane be capable of sustaining, without failure, 3.75g ultimate load. These airplanes, when loaded with full cargo (and with a forward center of gravity), can sustain only 55 percent of this 3.75g ultimate flight condition. Analysis of the non-reinforced structure for three other critical load conditions [identified in part 25, ''Airworthiness Standards: Transport Category Airplanes,'' of the Federal Aviation Regulations (14 CFR 25) as abrupt-up elevator, dynamic landing and dynamic lateral gust] yields a similarly low structural capability.

The non-reinforced fuselage skin may result in an instability failure that provides no indication of impending failure until the skin and stringers buckle. In the worst case, the aft fuselage may collapse and separate from the airplane. There are no structural inspections that can detect or prevent this type of failure.

In-Service History

In 1991, a Model 747–100 series airplane that had been modified in accordance with these STC's was involved in an incident in which the pilot successfully recovered the airplane from a 3.0g dive maneuver. This airplane had a total payload of 163,800 pounds, which was much less than the maximum allowable payload of 214,300 pounds. The center of gravity (18 percent) was well within the allowable flight manual range of 12 percent (forward limit) to 21 percent (aft limit) for takeoff. The FAA estimates that during this 3.0g maneuver, the airplane loads were only 10 percent less than those that would have caused the fuselage to collapse. The FAA has recently determined by analysis that, if only 6,700 pounds of additional cargo had been loaded in the front portion of the fuselage, the airplane's center of gravity would have shifted forward three percent. The resulting stress levels would exceed the airplane's structural capability, which could lead to separation of the aft fuselage from the airplane. In light of the weight of a Model 747 series airplane (738,000 pounds), 6,700 pounds is insignificant and is just 3.1 percent of the the maximum allowable payload (214,300 pounds).

The operators of the 10 affected airplanes have reported four in-flight events that have resulted in substantial structural damage to these airplanes, which are among the oldest Model 747 series airplanes in operation (the youngest of which is over 24 years old). In addition to the 3.0g maneuver, discussed above, the FAA has received the following reports:

1. A report of total engine separation due to intentional departure into known severe turbulence;

2. A report of uncontained engine failure (more than 180 degrees) that resulted in deformation of the pylon and subsequent damage to the wing and fuselage due to projectile penetrations (survivability of such in-flight damage is dependent upon the integrity of the fuselage structure); and

3. A report of a severe landing that resulted in a 40-foot by 3-foot hole in the aft fuselage.

The FAA's Consideration of All Relevant Factors

Based upon National Aeronautics and Space Administration (NASA) Contractor Report 181909, DOT/FAA-CT–89/36–IV, ''The NASA Digital VGH Program,'' Volume IV, ''B747 Data 1978–1980,'' dated December 1989, the FAA finds that, typically, a Boeing Model 747 series airplane will encounter turbulence or a flight maneuver above 2.0g every 15,000 flight hours, which would exceed the structural capability of the affected airplanes if cargo were critically loaded. Therefore, the FAA has determined that another major incident on these affected

airplanes is likely to occur in the near future. If the airplane is critically loaded, analysis indicates that the airplane will be unable to sustain ultimate load, and in certain cases limit load.

The FAA has considered the possibility of requiring modifications to reinforce the subject structure, but finds that they are not feasible at this time because internal loads data were not generated to substantiate the original STC. The lack of internal loads data makes the determination of adequate reinforcement impossible. Therefore, until such data are generated, structural modifications are not a viable option to restore safety to these airplanes.

The FAA has considered imposing altitude, airspeed, center of gravity, and payload limitations on these airplanes. The FAA finds that a reduction in altitude would have little effect on any of the critical flight conditions since three critical flight conditions (i.e., 2.5g dive maneuver, abrupt-up elevator, and dynamic lateral gust) can occur at any altitude. (The remaining critical flight condition is a landing condition.)

The FAA finds that a reduction in allowable airspeed would have the greatest effect on the structural loads that result from abrupt-up elevator and lateral gust conditions. However, to provide full structural capability, the airspeed would have to be reduced below the airplane's design maneuver speed (278 knots) to an airspeed close to the flaps-up, stall speed and stick shaker activation speed (215 knots) for these airplanes. Additionally, the critical shear loads resulting from the dynamic landing condition are at approach speeds that cannot be reduced. Therefore, reducing airspeeds would not be a safe option.

Since the horizontal stabilizer balances loads during flight maneuvers, a limitation of the airplane's center of gravity would have a significant effect in reducing the shear and bending loads on the fuselage that result from the required 3.75g dive maneuvers (which is 2.5g multiplied by the required 1.5 safety factor). For example, a 20 percent forward center of gravity limitation would yield full structural capability for these airplanes during a 2.5g dive maneuver with a 1.5 ultimate safety factor. This limitation would not require any new payload restrictions for the dive maneuver requirements, but does not solve the negative margins of safety for the other cases.

The FAA finds that a reduction in payload is the only operational limitation that would have an effect on structural loads that result from dynamic landing, abrupt-up elevator, and gust conditions. Removal of payload aft of the main deck side cargo door (fuselage station 1720) would provide a suffcient reduction in the critical shear and bending loads on the fuselage during these conditions.

Substantiation of the FAA's Findings

The FAA has reviewed data from the following sources to verify its findings of large negative margins of safety.

1. The FAA has reviewed Hayes International Corporation Engineering Report 8813, ''Structural Substantiation for Main Deck Side Cargo Door Modification Installation and 'E' Class Cargo Compartment for the Boeing 747–100 Aircraft,'' dated March 22, 1988. This report documents over 100 findings of negative margins of safety on numerous pages. One such example can be found on page 7.2.127 of this report, which documents many negative margins of safety, one as large as -0.44 at fuselage station 1680 of the floor beam. The report recommends the installation of a reinforcement strap to ensure the structural integrity of the fuselage in this area of the airplane. However, the report does not contain any engineering analysis to determine whether the installation of a reinforcement strap would resolve the negative margins of safety. The FAA inspected one airplane and determined that some of the reinforcement straps were not installed on the fuselage foward of the main deck floor. The FAA used the Hayes International Report 8813 internal loads data for the main deck floor and conducted an analysis that verified the negative margins of safety documented in the report. The report contains no analysis or internal loads data for the missing structural doublers forward of the main deck side cargo door cutout.

2. The FAA has reviewed data submitted by Elsinore Aerospace Services, on behalf of the GATX-Airlog Company, to the FAA for approval of a modification that converts Model 747 combi airplanes to a special freighter configuration. The design and data submitted for the forward fuselage were identical to the design and data submitted for the subject STC's. The Elsinore data confirmed the FAA's findings of negative margins of safety in the existing main deck floor. Elsinore Aerospace Services, together with the FAA, identified design deficiencies of the main deck floor and developed corrective measures for combi airplanes to meet the minimum level of safety required by part 25 of the Federal Aviation Regulation (14 CFR 25). However, similar corrective measures have not yet been developed for the Model 747–100 and –200 series airplanes.

3. The FAA has reviewed Boeing Commercial Airplane Group data that were used to convert Model 747 series airplanes from a passenger configuration to a special freighter configuration in accordance with a design developed by Boeing. The FAA Designated Engineering Representatives (DER) at the Boeing Commercial Airplane Group verified that large negative margins of safety would exist on airplanes modified in accordance with its design if the external skin doublers at the cargo door were not installed. The FAA reviewed and concurred with this analysis, and concluded that because of the similarity of the Boeing design (having the doublers removed) with the GATX design, the GATX design would have similar negative margins of safety of approximately −0.45 for the non-reinforced fuselage forward of the main deck side cargo door.

4. The FAA has conferred with the FAA DER's at the GATX-Airlog Company working on location at the Israel Aircraft Industries (IAI). These DER's are currently analyzing the design of the GATX-Airlog Company modification of the forward main deck side cargo door. Although the IAI report has not yet been submitted in final form to GATX, preliminary data reviewed by the DER's, on behalf of the FAA, indicate that large negative margins of safety exist forward of the main deck side cargo door, similar to those obtained in the Boeing and FAA analysis.

5. On December 20, 1995, the FAA held a meeting/telecon with operators and interested parties to gather more data. However, no data were presented to refute the FAA's findings of multiple unsafe conditions that were substantiated by all of the sources of data, discussed above. At this meeting, a consultant for the GATX-Airlog Company presented data (derived from the 3.0g dive maneuver incident) to demonstrate that the affected airplanes are capable of withstanding structural loads in the cargo door surround structure in excess of the payload restriction required by this AD. The FAA finds that this data for applied vertical loads (by far the largest component in determining margins of safety) are essentially the same as those determined by the FAA analysis, and confirms the FAA's findings of unsafe conditions.

This consultant's data did raise one issue that had not been considered by the FAA prior to the December 20, 1995, meeting. The consultant suggested that the data showed the possibility of

additional small lateral compression stresses resulting from minor lateral loads having occurred during the 3.0g dive maneuver, thereby indicating that the cargo door surround structure might be slightly stronger than that previously determined by the FAA. The data to support this conclusion had not been fully evaluated by either the consultant or the FAA and estimates of increments of strength cannot be definitively verified. The estimates for the loads in the analysis were extrapolated from the airplane's flight data recorder and the actual fuselage loads of the airplane during the 3.0g dive maneuver and the resulting stresses on the cargo door surround structure have not been demonstrated by instrumentation and tests. Without such tests, any conclusion regarding the strength of the structure would be speculative. The FAA's determinations of the unsafe conditions and proposed operational limitations are based on reliable analysis techniques and extensive instrumented testing of the Model 747 series airplane by the Boeing Commercial Airplane Group.

At the meeting, GATX-Airlog Company requested that the FAA delay issuance of this rulemaking action until all data have been finalized and a corrective modification has been designed, developed, and approved. The FAA has determined that delaying this AD action would be inappropriate since multiple unsafe conditions exist and the large negative margins of safety present an unacceptable risk. Therefore, the FAA has concluded that the level of risk associated with these unsafe conditions, including the potential for total loss of the aircraft, is so great that a delay cannot be justified. Furthermore, a delay in issuance of this AD action would be contrary to the interest of public safety, since the nature of the unsafe conditions is such that failure cannot be predicted. Failure under the currently authorized operating conditions is predicated upon the occurrence of uncontrollable factors such as wind gusts, maneuver loads, and hard landings.

Requirements of This AD

Consequently, the FAA has determined that a combination of operational payload limitations must be imposed to reduce the shear and bending loads forward of the main deck side cargo door. A 20 percent forward center of gravity limitation, together with the removal of all payload aft of fuselage station 1720 will reduce both the shear and bending loads on the fuselage during all critical flight conditions. These limitations still allow operation of the airplane with a center of gravity between 20 percent and 33 percent (with full flight range capability).

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes having these STC's as part of their type design, this AD is being issued to prevent structural collapse and subsequent separation of the aft fuselage from the airplane. This AD requires a revision to the Limitations Section of the FAA-approved AFM and the Limitations Section of the Airplane Weight and Balance Supplement to restrict the running load (which is the maximum allowable linear load per inch), maximum total payload, and center of gravity limits.

This AD also provides for the removal of these restrictions following accomplishment of a modification of the airplane structure that corrects all structural deficiencies that restores the airplane to meet or exceed the requirements of part 25 of the Federal Aviation Regulations (14 CFR 25) in accordance with a method that is approved by the Manager of the Seattle Aircraft Certification Office.

This AD's restrictions are in addition to, not in lieu of, the restriction imposed by AD 95–15–52. Therefore, the revision to the Limitations Section of the AFM and the Airplane Weight and Balance Supplement required by this AD, does not supersede the revision required by AD 95–15–52. Further, modifications approved as terminating action for the restriction required by AD 95–15–52, amendment 39–9335, are not considered to be approved as terminating action for the restrictions required by this AD.

The load level established by this AD is based upon an FAA evaluation of the maximum payload that these airplanes are capable of carrying without external structural doublers installed and without correction of inadequacies in the main deck floor. The FAA has determined that the restrictions imposed by this AD will provide a sufficient level of safety for airplanes on which the external doublers are missing and structural inadequacies of the main deck floor and manufacturing deficiencies exist.

Impact of the Limitations Imposed by the AD

The FAA is aware that the operational limitations imposed by this AD may severely impact the economic viability of the operators of these modified airplanes. In effect, the AD would limit total payload to 120,000 pounds from a maximum of 220,000 pounds. This may result in the operators' inability to operate economically because operators may be unable to obtain contracts that guarantee payload capabilities of 200,000 pounds. The average payload per flight is approximately 150,000 pounds, and operators may be unable to complete heavy-loaded segments of multiple-stop flights. These limits occur because the AD specifies that nothing is to be carried between body stations 1720 and 2360 for both the main deck and lower deck cargo areas and operation is prohibited forward of 20 percent center of gravity. Nonetheless, the FAA must impose these restrictions to ensure continued operational safety of these airplanes.

The FAA further acknowledges that these restrictions may be conservative. However, an alternative solution to this complex matter—one which will ensure the safety of these airplanes and the flightcrews—has not yet been developed. Operators should note that other operational limitations data may be submitted to the FAA for approval under the alternative methods of compliance provision of paragraph (c) of the AD.

In a meeting on December 27, 1995, the operators asked that the effective date of the AD be delayed until corrective measures can be developed. The operators also indicated that they would be removing the 10 affected airplanes from service no later than January 31, 1996. The effective date of this AD is January 30, 1996, with a compliance time of 48 hours for implementing the AD. As a result of the operators' commitment, the aircraft will be out of service pending repairs before the expiration of the compliance time.

The FAA intends to investigate other types of loading conditions to determine whether additional operational limitations must be imposed to address the structural inadequacies of the main deck floor and other areas that have not yet been identified. If, after review of such data, the FAA determines that the data indicate that further restrictions are necessary, the FAA may consider further rulemaking to implement appropriate corrective action.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons

are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption **ADDRESSES**. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 95–NM–193–AD.'' The postcard will be date stamped and returned to the commenter.

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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a ''significant regulatory action'' under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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 USC 106(g), 40101, 40113, 44701.

§ 39.13 [Amended]

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

96–01–03 Boeing: Amendment 39–9479. Docket 95–NM–193–AD.

Applicability: Model 747–100 series airplanes modified in accordance with Supplemental Type Certificate (STC) SA2322SO, SA2323SO, or SA5199NM; and Model 747–200 series airplanes modified in accordance with STC SA4227NM–D or SA5759NM; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 use the authority provided in paragraph (c) of this AD to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition; or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any airplane from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent structural collapse and subsequent separation of the aft fuselage from the airplane, accomplish the following:

(a) Within 48 clock hours (not flight hours) after this AD becomes effective, revise the Limitations Section of the FAA-approved Airplane Flight Manual (AFM) and the Limitations Section of the Airplane Weight and Balance Supplement to include the following information. This may be accomplished by inserting a copy of this AD in the AFM and the Airplane Weight and Balance Supplement.

''PAYLOAD LIMITATIONS:

Do not exceed 0.00 pounds/inch running load between body stations 1720 and 2360. The maximum total payload between body stations 1720 and 2360 shall not exceed 0.00 pounds for both main deck and lower deck cargo.

The currently certified center of gravity limitations defined in STC's SA2322SO, SA2323SO, and SA5199NM (for Model 747–100 series airplanes) and STC's SA4227NM–D and SA5759NM (for Model 747–200 series airplanes) shall be limited to prohibit operation forward of 20 percent center of gravity.''

(b) Accomplishment of a modification of the airplane structure in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate, constitutes terminating action for the limitation requirements of paragraph (a) of this AD. The AFM limitation and the Weight and Balance Supplement limitation may be removed following accomplishment of such a modification.

(c) 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.

(e) 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.

(f) This amendment becomes effective on January 30, 1996.

Issued in Renton, Washington, on December 27, 1995.

Darrell M. Pederson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 96–62 Filed 1–2–96; 8:45 am]

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14 CFR Part 71

[Airspace Docket No. 95–AWP–31]

Amendment of Class E Airspace; Flagstaff, AZ

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends the Class E airspace area at Flagstaff, AZ. The development of a Global Positioning System (GPS) Standard Instrument Approach Procedure (SIAP) to Runway