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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [62 FR 51594 NO. 191 10/02/97]

[Docket No. 97-CE-94-AD; Amendment 39-10150; AD 97-20-14]

RIN 2120-AA64

Airworthiness Directives; Mitsubishi Heavy Industries, Ltd., MU-2B Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that applies to all Mitsubishi Heavy Industries, Ltd. (Mitsubishi) MU-2B series airplanes. This AD requires incorporating information into the Limitations Section of the Airplane Flight Manual (AFM) that would require pilot training before flight into known or forecast icing conditions after a certain date. This AD results from the Federal Aviation Administration's analysis that the current training level of the pilots-in-command (PIC) of the MU-2B series airplanes makes it difficult for pilots to recognize adverse operating conditions and operate safely while flying in icing conditions. Similar training to that required in this AD for pilots of other high performance airplanes has shown a lower accident rate over time after the training than before. The actions specified by this AD are intended to decrease the chance of icing-related incidents or accidents of the MU-2B series airplanes due to pilot error.

DATES: Effective October 17, 1997.

Comments for inclusion in the Rules Docket must be received on or before November 24, 1997.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-94-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Information related to this AD may be examined at the address above.

FOR FURTHER INFORMATION CONTACT: Mr. John Dow, Aerospace Engineer, FAA, Small Airplane Directorate, 1201 Walnut, suite 900, Kansas City, Missouri 64106; telephone (816) 426-6934; facsimile (816) 426-2169.

Events Leading to This AD

Service history of the Mitsubishi MU-2B series airplanes prompted the FAA to examine the design of these airplanes and analyze the ability of the pilots of these airplanes to fly and operate in icing conditions. The FAA recently conducted a special certification review (SCR) for the Mitsubishi MU-2B series airplanes. This examination shows that several accidents have occurred, and that future accidents/incidents may be prevented by modifications to the airplane design (to be addressed in another AD action) and by additional training to enhance the pilot's ability to manage the airplane in adverse operating conditions.

The FAA believes that pilots are not properly interpreting or recognizing the performance degradation and visual ice buildup cues of the airframe that can occur during flight into icing conditions on the Mitsubishi MU-2B series airplanes. Additional pilot training will enhance the pilot's ability to recognize adverse operating conditions and properly manage the MU-2B series airplane.

The FAA's analysis of the performance capabilities of the Mitsubishi MU-2B airplane operating in icing conditions shows that this training is needed for the pilot-in-command. Correct operation of the Mitsubishi MU-2B series airplanes in adverse operating conditions (primarily icing conditions), including full knowledge of the capabilities of the airplane, is necessary in order to prevent any future incidents or accidents.

Information Developed to Help Prevent the Above Condition

Mitsubishi, working with the FAA, has developed a video tape that provides in-depth information on certain aspects of the operation of the Mitsubishi MU-2B series airplanes. This video tape, Mitsubishi Training Video No. YET-97336, is part of an eight-hour training program that includes a focus on the following aspects of the MU-2B series airplanes operational characteristics during flight in icing conditions:

- General conditions that all airplanes encounter while flying in icing or freezing precipitation conditions;
- Information on the operation of all equipment and aspects associated with operation of these airplanes in icing conditions, including, but not limited to, autopilot operation; auto-ignition relight; propeller performance; stall characteristics; and recommended modes of operation; and
- A summary of the accident reports of the Mitsubishi MU-2B airplanes operated in icing conditions; the cues to look for and methods to exit icing conditions when these cues are recognized; and the lessons learned from these accidents to use for future operation of the aircraft.

Service history from other manufacturers initiating similar training (though on a voluntary basis) reveals a lower incident and accident rate for the airplanes after the training was conducted.

The FAA's Determination

After examining the circumstances and reviewing all available information related to the incidents described above, including the relevant training program developed by Mitsubishi, the FAA has determined the following:

- pilots experienced in flying twin-engine propeller airplanes may not be completely familiar with the operational characteristics of the Mitsubishi MU-2B series airplanes in adverse operating conditions;
- that the above-described training will provide pilots the knowledge required to safely operate Mitsubishi MU-2B series airplanes in adverse operating conditions;
- that all pilots-in-command (PIC) of Mitsubishi MU-2B series airplanes should have the above-described training no later than November 15, 1997, and thereafter every 2 years, in order to have the authority to continue to fly into known or forecast icing conditions; and
- AD action should be taken to decrease the chance of icing-related incidents or accidents of the affected airplanes due to pilot error.

Explanation of the Provisions of the AD

Since an unsafe condition has been identified that is likely to exist or develop in other Mitsubishi MU-2B series airplanes if the PIC is not proficient in the operating conditions of these airplanes, the FAA is issuing an AD. This AD requires incorporating information into the Limitations Section of the Airplane Flight Manual (AFM) that would require pilot training before further flight into known or forecast icing conditions after a certain date. This AFM limitation would consist of the following:

"On or after November 15, 1997, no person may serve as pilot-in-command (PIC) of a Mitsubishi MU-2B series airplane in a flight into known or forecast icing conditions, unless the PIC has received the following training since the beginning of the 24th calendar month before the scheduled flight: FAA-approved Biennial Icing Awareness Training (IAT), Mitsubishi Training Video No. YET-97336. This eight-hour training became available September 22, 1997, and is provided by Mitsubishi Heavy Industries at no cost, as part of the Mitsubishi Systems Review (MSR) program. To sign up for the planned training schedules or to arrange training at a more convenient time and location, contact Mitsubishi at (972) 980-5001. Training is also available at the Flight Safety International (Houston) and Reese Howell Enterprises training facilities. Mitsubishi will provide pilot log book endorsements upon the completion of this training. Please note that all operators of the affected airplanes must initiate action to notify and ensure that flight crewmembers are aware of this requirement."

Reasons for AD Action Instead of Other Methods

Requiring the AFM Limitation for training the PIC of the aspects of the operation of the Mitsubishi MU-2B series airplanes is critical to safe operation of these airplanes during the upcoming icing seasons. The FAA determined that the only method of mandating this type of training before the next icing season is through an AD. Using the AD approach for this type of training is considered an interim method of addressing this subject, until the FAA determines the best method to use to mandate this type of training.

Determination of the Compliance Time of This AD

The unsafe condition described in this AD is not a direct result of airplane design or the number of hours the airplane is operated, but is attributed to the expertise and knowledge of

the PIC. For this reason, the FAA has determined that a compliance time based upon calendar time (24 hours after the effective date of the AD) should be utilized instead of a certain number of hours time-in-service (TIS).

Determination of the Effective Date of the AD

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for public prior 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 immediate flight safety and, thus, was not preceded by notice and opportunity to 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 should identify the Rules Docket number and be submitted in triplicate to the address specified above. 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 No. 97-CE-94-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 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 (otherwise, an evaluation is not required). A copy of it, if filed, may be obtained from the Rules Docket.

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), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive (AD) to read as follows:

SUPERSEDED

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference FAR Subpart 39.3).

97-20-14 MITSUBISHI HEAVY INDUSTRIES, LTD.: Amendment 39-10150; Docket No. 97-CE-94-AD.

Applicability: Models MU-2B, MU-2B-10, MU-2B-15, MU-2B-20, MU-2B-25, MU-2B-26, MU-2B-26A, MU-2B-30, MU-2B-35, MU-2B-36, MU-2B-36A, MU-2B-40, and MU-2B-60 airplanes, all serial numbers, 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 (d) 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 within the next 24 hours after the effective date of this AD, unless already accomplished.

To decrease the chance of icing-related incidents or accidents of the affected airplanes due to pilot error, accomplish the following:

(a) Incorporate the following into the Limitations Section of the FAA-approved Airplane Flight Manual (AFM):

"On or after November 15, 1997, no person may serve as pilot-in-command (PIC) of a Mitsubishi MU-2B series airplane in a flight into known or forecast icing conditions, unless the PIC has received the following training since the beginning of the 24th calendar month before the scheduled flight: FAA-approved Biennial Icing Awareness Training (IAT), Mitsubishi Training Video No. YET-97336. This eight-hour training became available September 22, 1997, and is provided by Mitsubishi Heavy Industries at no cost, as part of the Mitsubishi Systems Review (MSR) program. To sign up for the planned training schedules or to arrange training at a more convenient time and location, contact Mitsubishi at (972) 980-5001. Training is also available at the Flight Safety International (Houston) and Reese Howell

Enterprises training facilities. Mitsubishi will provide pilot log book endorsements upon the completion of this training. Please note that all operators of the affected airplanes must initiate action to notify and ensure that flight crewmembers are aware of this requirement."

(b) Inserting a copy of this AD into the Limitations Section of the AFM accomplishes the intent of this AD.

(c) Incorporating the AFM insert, as required by this AD, may be performed by the owner/operator of the affected airplane provided he/she holds at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7). Accomplishment of this action must be entered into the aircraft records showing compliance with this AD in accordance with section 43.11 of the Federal Aviation Regulations (14 CFR 43.11).

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, FAA, Aircraft Certification Service, 1201 Walnut, suite 900, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Operations Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Small Airplane Directorate.

(e) Information related to this AD may be examined at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri.

(f) This amendment (39-10150) becomes effective on October 17, 1997.