



National Transportation Safety Board

Washington, DC 20594

Safety Recommendation

Date: October 23, 2014

In reply refer to: A-14-99

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The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. The NTSB urges Mitsubishi Heavy Industries America Inc. to take action on the safety recommendation issued in this letter.

This recommendation addresses checklist usage in Mitsubishi MU-2B series airplanes. It is derived from the NTSB's investigation of a Mitsubishi MU-2B-25 airplane accident in Owasso, Oklahoma. As a result of this investigation, the NTSB has issued four new safety recommendations, one of which is addressed to Mitsubishi Heavy Industries America Inc. Information supporting this recommendation is discussed below.

On November 10, 2013, about 1546 central standard time, a Mitsubishi MU-2B-25 (MU-2B) twin-engine airplane, N856JT, impacted wooded terrain while maneuvering near Owasso, Oklahoma. The commercial pilot, who was the sole occupant of the airplane, was fatally injured. The airplane was destroyed. The airplane was registered to Anasazi Winds LLC, Tulsa, Oklahoma, and was operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed for the flight, and an instrument flight plan had been filed. The flight departed Salina Regional Airport, Salina, Kansas, about 1500 and was en route to Tulsa International Airport, Tulsa, Oklahoma (TUL).¹

¹ The NTSB determined that the probable cause of this accident was “the pilot’s loss of airplane control during a known one-engine-inoperative condition. The reasons for the loss of control and engine shutdown could not

The NTSB's investigation found that, as part of his syllabus for required Special Federal Aviation Regulation (SFAR) No. 108 training,² the accident pilot was provided a checklist that was not accepted by the Federal Aviation Administration (FAA) MU-2B Flight Standardization Board. The use of this checklist was not in compliance with the SFAR, which requires that all training and operations conducted in MU-2B series airplanes be completed in accordance with applicable checklists listed in the SFAR or checklists accepted by the FAA. Identified as "For Training Purposes Only," the training checklist generally followed the SFAR No. 108 accepted checklist content except for a few items that were in a different sequence. The training checklist was also labeled as applicable to other MU-2B airplane models (MU-2B-40 and MU-2B-60) and did not mention the MU-2B-25. A fire-damaged copy of the unaccepted checklist was found in the cockpit wreckage and another copy was found in the aft portion of the fuselage. It is unknown whether the checklist was used during the accident flight.

The accident pilot's flight instructor reported that the training checklist was used during pilots' first training flight because it contained supplemental information that the instructor found helpful for pilots new to MU-2B series airplanes. Both checklists were used during the accident pilot's training, but the accepted checklist was used exclusively after the first flight. Postaccident interviews with pilots who previously completed training with the flight instructor reported different experiences concerning the training checklist. One former trainee reported never using the training checklist in flight and emphasized that only the FAA-accepted checklist was used. Another former trainee used the training checklist as the sole checklist for almost every flight. The NTSB observed the presence of checklists other than those accepted by the FAA (with and without the accepted checklist) in 3 of 10 MU-2B cockpits examined during the investigation.

The NTSB notes that the intent of SFAR No. 108 is to improve safety through standard training and operational procedures for MU-2B series airplanes and is concerned that some pilots may be using checklists not accepted by the FAA. The NTSB concludes that to maintain the intent of SFAR No. 108, the checklist requirements set forth in the special regulation should be reinforced among flight instructors, owners, and operators of MU-2B series airplanes.

Therefore, the National Transportation Safety Board makes the following recommendation to Mitsubishi Heavy Industries America Inc.:

Work with the Federal Aviation Administration (FAA) to develop and distribute written guidance to flight instructors, owners, operators, and pilots of Mitsubishi MU-2B series airplanes about the requirement to use FAA-accepted checklists as specified in Special Federal Aviation Regulation No. 108. (A-14-99)

be determined because the airplane was not equipped with a crash-resistant recorder and postaccident examination and testing did not reveal evidence of any malfunction that would have precluded normal operation." More information about this accident, NTSB case number CEN14FA046, is available at <http://www.nts.gov/aviationquery/index.aspx>.

² Pilot operation of Mitsubishi MU-2B series airplane requires adherence to special initial and recurrent training, experience, and operating conditions as specified in SFAR No. 108, which was published in the *Federal Register* on February 6, 2008, and became effective on April 7, 2008, with compliance required by February 6, 2009. The Federal Aviation Administration issued the SFAR after conducting a safety evaluation of Mitsubishi MU-2B series airplanes in response to an increase in accidents involving the high-performance aircraft.

The NTSB also issued three new safety recommendations to the FAA.

Acting Chairman HART and Members SUMWALT, ROSEKIND, and WEENER concurred in this recommendation.

The NTSB is vitally interested in this recommendation because it is designed to prevent accidents and save lives. We would appreciate receiving a response from you within 30 days detailing the actions you have taken or intend to take to implement it. When replying, please refer to the safety recommendations by number. We encourage you to submit your response electronically to correspondence@ntsb.gov.

[Original Signed]

By: Christopher A. Hart,
Acting Chairman