

September 9, 1991

Federal Aviation Administration
ACO 270
601 E. 12TH Street
Kansas City, Mo. 64106

Attention: Mr. Troy Simms

Dear Mr. Simms,

Per our previous discussions, I request that the Federal Aviation Administration give further consideration to requiring a type rating for all United States certified pilots to operate all models of the MU-2B aircraft.

Although the Special Certification Review of the MU-2 in 1983 through 1984 looked at this issue and determined that a type rating was not required, as the aircraft remains in service and becomes less expensive, a large number of pilots without appropriate experience and training will be flying the aircraft.

Please forward this request to the appropriate area within the F.A.A.. I will be glad to provide any information that may be required to accomplish this project.

Sincerely,



Ralph M. Sorrells

General Manager-Aircraft Product Integrity
Mitsubishi Heavy Industries America, Inc.

September 23, 1991

Federal Aviation Administration
SAC FSDO
6650 Belleau Wood Lane
Sacramento, CA. 95822

Attention: Mr. Ray Steinkraus

Dear Mr. Steinkraus,

Certainly was a pleasure to meet you at the Reno Air Races last week. That was my first time to attend and I assure you that it will not be my last. Hope the event was as enjoyable for you.

Per our previous discussion regarding setting up a requirement for a type rating to operate the MU-2, I request that you use your influence within the Federal Aviation Administration to initiate a requirement for a type rating for all United States certified pilots to operate all models of the MU-2B aircraft.

Although a Special Certification Review of the MU-2 in 1983 through 1984 reviewed this issue and determined that a type rating was not required, as the aircraft remains in service and becomes less expensive, a large number of pilots without appropriate experience and training will be flying the aircraft. Since Mitsubishi Aircraft is no longer in business, the company cannot provide the persuasion that pilots need to obtain adequate initial and refresher training.

Please forward this request to the appropriate area within the F.A.A.. I will be glad to provide any information that may be required to accomplish this project.

Sincerely,



Ralph M. Sorrells

General Manager-Aircraft Product Integrity
Mitsubishi Heavy Industries America, Inc.

bcc: K. Kinoshita/M. Niwa
M. Turner



U.S. Department
of Transportation

**Federal Aviation
Administration**

601 E. 12th Street
Kansas City, MO 64106

October 17, 1991

Mr. Ralph Sorrells
Mitsubishi Heavy Industries
America, Inc.
15303 Dallas Parkway
Suite 685 LB-77
Dallas, Texas 75248

Dear Mr. Sorrells:

We are in receipt of your letter dated September 9, 1991, in which you request the Federal Aviation Administration further consider the requirement for a type rating to operate MU-2B aircraft.

Your letter is being forwarded to the appropriate office in Washington, D.C. for a response.

Sincerely,

Richard McCleish
Aviation Safety Inspector
Aircraft Evaluation Group, ACE-270



U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

DEC 3 1991

Mr. Ralph M. Sorrellis
Mitsubishi Heavy Industries
America, Inc.
15303 Dallas Parkway
Suite 685, LB-77
Dallas, Texas 75248

Dear Mr. Sorrellis:

This is in response to your letter of September 9 to Mr. Troy Simms, Manager, Aircraft Evaluation Group, ACE-270, Federal Aviation Administration (FAA), 601 East 12th Street, Federal Building, Kansas City, Missouri 64106, in which you request that the FAA give consideration to the establishment of a pilot type rating for the Mitsubishi Model MU-2B aircraft.

This matter was specifically addressed during a special certification review of the MU-2 Model aircraft by the FAA in 1983 through 1984. During the above review, the decision was reached that it would be inappropriate for the FAA to establish a pilot type rating for the MU-2 aircraft. This decision was based on aircraft type rating qualification criteria as it would apply to the subject aircraft. This office concurs with the decision of that review.

We trust the above response will be helpful to you.

Sincerely,

W. Michael Sacrey

W. Michael Sacrey
Acting Manager, General Aviation
and Commercial Division

October 13, 2003

MHIA03-014

Federal Aviation Administration- AFS-840
General Aviation & Commercial Division
800 Independence Ave., S.W.
Washington, D.C. 20591

Subject: MU-2 Special Federal Aviation Regulation (SFAR) or FITS Program

Dear Mr. Glista

After reviewing accident statistics, Mitsubishi Heavy Industries America, Inc. (MHIA) agrees with the FAA that some pilots, qualified in less complex multiengine aircraft, may not have received adequate training necessary to safely operate the MU-2B aircraft in certain flight conditions. Frequent training is essential for the safe operation of these aircraft.

Following the fatal accident of an MU-2B at Malad City, Idaho on January 15, 1996, the FAA established a Fact Finding Focused Special Certification Review (FFFSCR) team¹. The FFFSCR team was chartered to investigate the icing characteristics of the MU-2B and the aircraft certification basis. After extensive investigation, testing and analysis including 13 accidents, the FFFSCR team identified many reasons for pilot unawareness and distraction from critical conditions (such as low experience level and insufficient knowledge of some MU-2B pilots) but concluded that proper training was the key to preventing all accidents.

1. What were the FFFSCR Team's conclusions?

While the basic focus of the FFFSCR Team was concerned with operations in icing, overall causes for accidents are discussed. In the final report, the FFFSCR team submitted the following statements:

Need to mandate training

The FFFSCR Team states, *"If the pilot does not come to this airplane with the training, the pilot must be trained through an FAA mandate of some kind. The Team's review of the accident reports indicated that pilots flying the accident airplanes did not possess sufficient knowledge, or the knowledge was not current enough to be remembered as applicable to the situation."²*

Other conclusions of the FFFSCR Team are stated below:

Pilot unawareness

"Following a careful review of all available data, the Team concluded that the basic cause of the accidents was pilot unawareness of the criticality of the {icing} condition that exists just prior to departure from controlled flight. In some cases, the pilot knows that a hazardous condition exists, but is unwilling or unable to take the required action prior to departing controlled flight."³

Other contributing reasons

The FAA then lists reasons for icing accidents and other reasons that *"may have contributed to the accident scenarios..."⁴* These reasons, listed by the FFFSCR

² FFFSCR report, Page V.16

Team, for contributing to the accident scenarios are such as; "Optimistic pilot-thought conditions would improve in a short time, since it always had in the past."; "Pilot had high expectations on mission completion due to financial, employment pressures, or personal reasons that clouds judgment"; and "Pilot had macho image and would not turn back or exit icing conditions."⁵

Final conclusions

"The above reasons were possible contributing causes for the accidents and, after much deliberation, it was not possible to arrive at a single mechanical remedy that would have prevented the accidents from occurring. However, the accidents may all have been prevented by proper training that is successful, in that complete understanding takes place, and is remembered when encountering the conditions that were covered in training. This means that effective training must take place and be reinforced biennially to assure proper pilot actions. The Team is therefore recommending a series of mechanical fixes, systems changes, AFM limitations, and a training program to correct the unsafe condition."⁶

2. Does the need for recurrent formal training still exist?

Since the release date of the FFFSCR in June 1997 until present there have been ten fatal accidents over five of which may have been avoided had a type rating or similar mandated formal training program such as FITS been required.

PROP has been effective

MHI's Pilot Review of Proficiency (PROP) programs have been quite effective in reducing MU-2 accidents. The FFFSCR report notes that, *"The voluntary seminar training program initiated by MHI, called Pilot's Review of Proficiency, or PROP, has*

*apparently had some beneficial effect on the accident rate since its inception in 1994. Unfortunately, PROP seminars are not mandatory*⁷.” The effect of reducing accidents by utilizing programs such as PROP points out the need for a mandated FAA program such as FITS. Although PROP is not a training program, it stresses the need for obtaining good training and stresses pilot awareness. Review of decision-making involved in accident scenarios seems to be a significant benefit as well.

Formal training lacking in recent accidents

Over half of the accident pilots did not invest in any “formal training.”⁸ Two pilots who did receive formal training at FSI were unable to complete the requirements of the course and did not receive a certificate. In one recent accident, the pilot was faced with a “split flap” condition caused by a maintenance error. Formal training facilities teach to watch for this condition anytime during flap deployment and what to do in the event it is encountered. This particular pilot used in-house training and it is probable that he was never presented with this condition during training. His confusion and delay in taking the appropriate action caused his death.

3. The FAA already mandates training for the MU-2

Based on recommendations and AD 97-20-14, the FFFSCR Team has put into place a mandated training program for pilots who want to retain the ability to operate the MU-2 in known icing conditions. The FAA states in the FFFSCR report the following:

“By means of an AD, require all MU-2B pilots (PIC) to attend an initial training course with a biennial requirement to include icing awareness, anti/de-icing system operation, icing severity

⁷ FFFSCR report, Page xi

*ues, and icing environment exit criteria. This training should include, as a minimum, the it
in the training syllabus in appendix 2.²³*

In essence, by issuing AD 97-20-14 against all Mitsubishi MU-2B pilots, not the aircraft, the
has indirectly established a requirement similar to a type rating, SFAR, or a FITS program.

In conclusion, MHIA requests the FAA Aircraft Evaluation Group consider the previous
conclusions of the FAA and proceed with a FITS program.

Respectfully,



Ralph M. Sorrells
Deputy General Manager
Mitsubishi Heavy Industries America, Inc.
Aircraft Product Support



U.S. Department
of Transportation
Federal Aviation
Administration

MAR 15 2004

RECEIVED
3-18-2004

800 Independence Ave., SW.
Washington, DC 20591

Mr. Ralph Sorrells
Mitsubishi Heavy Industries
of America, Inc.
4553 Glenn Curtiss Drive
Hanger #3, Suite 100
Addison, Texas 75001

Dear Mr. Sorrells:

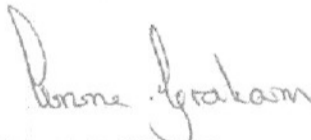
This is in response to your October 13, 2003, letter in which you describe the background information on the issuance of Airworthiness directive AD 97-20-14, which requires the Pilot in Command of Mitsubishi MU-2s to attend "an initial training course with a biennial requirement to include icing awareness, anti/de-icing system operation, icing severity cues, and icing environment exit criteria." You requested that the FAA establish a required training program for MU-2 pilots such as the FAA/Industry Training Standards (FITS) program.

The FAA has researched recent NTSB fatal accident data for the MU-2, and was unable to establish that the fatal accidents involving MU-2s are extraordinary when compared to other light single and twin turboprop airplanes. Therefore, without the appropriate empirical data that supports your contention that the MU-2 has flight characteristics that requires pilot training above that already required by the FAA, we will not be able to mandate additional pilot training.

The FITS program is not mandatory but it is incentive driven. The program is a partnership between FAA, industry, and academia designed to enhance general aviation safety. This will be accomplished by developing flight training programs that are more convenient, more accessible, less expensive, and more relevant to today's users of the National Airspace System. FITS is focused on the redesign of general aviation training. Instead of training pilots to pass a practical test, FITS will focus on expertly managing real-world challenges. Scenario based training will be used to enhance the GA pilots' aeronautical decision making, risk management, and single pilot resource management skills. We agree with the statement in your letter that the FFFSCR team concluded that proper training was the key to preventing all accidents. As with most accidents, many of the causal factors of MU-2 accidents are lack of aeronautical decision making skills, single pilot resource management, and risk management. Consequently, the FITS team would be glad to work with you on the development of a FITS for MU-2 transition and recurrent training.

If you would like to pursue development of a FITS for the MU-2, please contact Mr. Tom Gista, FITS Program Manager at (202) 267-7922.

Sincerely,

A handwritten signature in cursive script, appearing to read "Robert A. Wright".

for Robert A. Wright
Manager, General Aviation and Commercial
Division