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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Parts 61, 91, 135

[Docket No.: FAA-2006-24981; Amdt. Nos. 61-138, 91-344, and 135-134]

RIN 2120-AK63

#### MU-2B Series Airplane Training Requirements Update

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This action relocates and updates the content of SFAR No. 108 to the newly created subpart N of part 91 in order to improve the safety of operating the Mitsubishi Heavy Industries (MHI) MU-2B series airplane. SFAR No. 108 will be eliminated from the Code of Federal Regulations on November 7, 2017, after which time all MU-2B operators must comply with this subpart. The FAA is relocating the training program from the SFAR No. 108 appendices to advisory material in order to allow the FAA to update policy while ensuring significant training adjustments still go through notice-and-comment rulemaking. The FAA is also correcting and updating several inaccurate maneuver profiles to reflect current FAA training philosophy and adding new FAA procedures not previously part of the MU-2B training under SFAR No. 108. This rule will require all MU-2B training programs to meet the requirements of this subpart and to be approved by the FAA to ensure safety is maintained. As a result of this action, operators, training providers, and safety officials will have more timely access to standardized, accurate training material.

**DATES:** This rule is effective on September 7, 2016, except for the

removal of SFAR No. 108 to part 91 which is effective on November 7, 2017. The compliance date for this final rule is November 7, 2016. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of September 7, 2016.

Submit comments on or before November 7, 2016.

**ADDRESSES:** Send comments identified by docket number FAA-2006-24981 using any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- *Mail:* Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- *Fax:* Fax comments to Docket Operations at 202-493-2251.

*Privacy:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to [www.regulations.gov](http://www.regulations.gov), as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at [www.dot.gov/privacy](http://www.dot.gov/privacy).

*Docket:* Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** For technical questions concerning this action, contact Joseph Hemler, Commercial Operations Branch, Flight Standards Service, AFS-820, Federal Aviation Administration, 55 M Street SE., 8th floor, Washington, DC 20003-3522; telephone (202) 267-1100; email [joseph.k.hemler-jr@faa.gov](mailto:joseph.k.hemler-jr@faa.gov).

**SUPPLEMENTARY INFORMATION:**

### Comments Invited

Although the FAA is inviting comments, we have made the determination to adopt this final rule without prior notice and public comment in order to mitigate the safety risks where current Special Federal Aviation Regulation (SFAR) No. 108 conflicts with the FAA's current policy and guidance. The Regulatory Policies and Procedures of the Department of Transportation (DOT), 44 FR 1134 (February 26, 1979), provide that to the maximum extent possible, operating administrations for the DOT should provide an opportunity for public comment on regulations issued without prior notice.

### Authority for This Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code (U.S.C.). Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General Requirements." Under that section, Congress charged the FAA with prescribing regulations that set the minimum standards for practices, methods, and procedures necessary for safety in air commerce. This regulation is within the scope of that authority because it will set the minimum level of safety for operation of the Mitsubishi MU-2B.

SFAR No. 108 contained inaccurate MU-2B flight training profiles, and the National Transportation Safety Board (NTSB) recommended that the FAA remedy these inaccuracies as soon as is practical due to serious safety concerns (NTSB Rec. A-14-96 and -97). The FAA concludes that immediate action is necessary to correct the inaccuracies in SFAR No. 108 and, therefore, finds that notice and public comment under 5 U.S.C. 553(b) are impracticable and contrary to the public interest. Further, the FAA finds that good cause exists under 5 U.S.C. 553(d) for making this rule effective immediately upon publication.

## I. Final Rule With Request for Comments

Special Federal Aviation Regulation No. 108 mandated training, experience, and operating requirements to improve the safety of operating the MHI MU-2B series airplane. The SFAR contained inaccurate training maneuver profiles and is misaligned with current FAA flight training policy. This action corrects safety-related inaccuracies in the regulation and streamlines the process for updating MU-2B flight training requirements by removing them from regulations and placing them in advisory material. This change will permit the FAA to be more responsive by issuing guidance should any inaccuracies be discovered or should training requirements or policy need to be revised and updated in the future. As a result of this action, pilots, operators, training providers, and safety officials will have more timely and accurate training material.

## II. Background

### A. Background

In 2008, the FAA published SFAR No. 108 to mandate flight training and experience requirements for operators of the MHI MU-2B twin-turboprop aircraft. The rule became effective in 2009 and did not have an expiration date. The flight training and experience requirements were based on an FAA safety evaluation of the aircraft, which has unique control surfaces and characteristics. There is a fleet of approximately 300 aircraft operating today in accordance with 14 CFR parts 91 and 135. In the 20 years leading up to SFAR No. 108, the MU-2B series aircraft experienced 80 accidents with 40 fatalities. Since the effective date of SFAR No. 108, there have only been two fatal accidents. In addition to experience and annual training requirements for pilots, SFAR No. 108 mandated training curriculum and flight profiles for operators and training providers.

Following the issuance of SFAR No. 108 on February 5, 2008, with a compliance date of February 5, 2009, Mitsubishi Heavy Industries of America (MHIA) and Turbine Aircraft Services (TAS), an industry party, began an evaluation to identify errors in flight profiles published in SFAR No. 108. At that time, minor spelling errors and technical items were identified. Additionally, MHIA and TAS notified the FAA of at least one error in procedure in the One Engine Inoperative Maneuvering Loss of Directional Control (Vmc Demonstration) profile.

Additionally, since the publication of SFAR No. 108, the FAA has approved the use of Continued Descent Final Approach (CDFA) procedures in all training programs, including the training programs for the MU-2B. The MU-2B FAA Flight Standardization Board (FSB)<sup>1</sup> subsequently included CDFA profiles in its FSB Report for use in MU-2B training programs. Because the FAA did not include CDFA procedures in SFAR No. 108, pilots were not permitted to train on these procedures or operate the aircraft consistent with them.

In 2012, the FAA revised its stall recognition and recovery procedures for all aircraft and all training programs by removing the emphasis to ensure a “minimum loss of altitude” when performing stall training maneuvers and by emphasizing a positive reduction in angle of attack procedure as the proper stall recovery method (Advisory Circular (AC) 120-109). The FAA also introduced the use of “startle factor” training through the use of the autopilot during stall recognition and recovery practice in all aircraft training programs. However, the FAA did not include the “startle factor” training in SFAR No. 108.

Both MHIA and TAS requested by letter in early 2012 that the FAA change the MU-2B flight training profiles in SFAR No. 108 and make them consistent with the new stall recognition and recovery procedures. They also suggested the FAA remove the flight training maneuver profiles from SFAR No. 108, for ease of subsequent modification in the event of regulatory or training procedural changes made by the FAA. The FAA recognized that proper stall recognition and recovery is a safety-of-flight concern and concurred that distributing information on how to recover from a stall was essential to proper MU-2B training and safety of flight.

### B. Statement of the Problem

There were a number of conflicts between SFAR No. 108 and best practices and FAA guidance, which demonstrate a better safety record. The FAA’s Kansas City Aircraft Evaluation Group (AEG)<sup>2</sup> and MHI have documented that the SFAR conflicted with new and revised FAA training

requirements, policy, guidance and safe operating practices set forth in the Airline Transport Pilot Practical Test Standards (PTS), Commercial Pilot PTS, FAA Notice N8900.205, Enhanced Stall and Stick Pusher Training; Advisory Circular (AC) 120-109, Stall and Stick Pusher Training, and AC 120-108, Continuous Descent Final Approach (CDFA). SFAR No. 108 conflicted with FAA guidance in the following instances:

First, SFAR No. 108 mandated power and trim settings for the demonstration of a one-engine-inoperative maneuver with loss of directional control. Those settings did not meet the safety standards of current FAA guidance and best practices. The “One Engine Inoperative Maneuvering—Loss of Directional Control” profile in the SFAR differed from current FAA guidance and best practices described in the FAA Airplane Flying Handbook (FAA-H-8083-3A).

Second, CDFA Procedures published in AC 120-108 and published in the MU-2 FSB Report, Revision 4, were not included in the training profiles in SFAR No. 108. Though published in the MU-2 FSB Report, Revision 4, CDFA procedures were not included in the SFAR No. 108 flight training profiles and therefore operators could not use these procedures while operating an MU-2B.

Third, SFAR No. 108 stall-recovery profiles required operators to perform all stall recoveries with a “minimal loss of altitude.” This was inconsistent with stall recovery guidance because the FAA now emphasizes successful recovery from a stall over minimizing the loss of altitude which can lead to a secondary stall. Recent changes to the FAA’s stall training policy in AC 120-109 and PTS created conflicts with several flight profiles.

Finally, as identified by Aircraft Evaluation Group (AEG) of the Flight Standards Service and MHI, SFAR No. 108 mandates several airspeeds in appendix D flight profiles that are incorrect.

### C. NTSB Recommendations

On October 23, 2014, NTSB urged the FAA to take action on the safety recommendations derived from the NTSB’s investigation of a Mitsubishi MU-2B-25 airplane accident in Owasso, Oklahoma. (NTSB Rec. A-14-96 and -97). These recommendations addressed operational training and checklist usage for Mitsubishi MU-2B series airplanes.

The NTSB’s investigation found that since SFAR No. 108 became effective in 2008, the FAA has revised its general

<sup>1</sup> An FSB’s primary responsibility is to determine requirements for pilot type ratings, to develop minimum training recommendations, and to ensure flight crew member competency. 8900.1, Volume 8, Chapter 2, Section 5.

<sup>2</sup> The AEG serves as Flight Standard Service (AFS) technical subject matter experts for operational and engineering activities. 8900.1, Volume 8, Chapter 2, Section 2.

stall recovery guidance and procedures for stall and stick pusher training for pilot certification and evaluation contained in AC 120–109, dated August 6, 2012. Advisory Circular 120–109 introduced a procedure for stall recovery that conflicted with related instruction provided in the SFAR. Therefore, the NTSB recommended in NTSB recommendation A–14–96 that the FAA revise, as soon as is practical, the “Approach to Stall” flight profile currently contained in SFAR No. 108 so that it is consistent with AC 120–109.

The NTSB also recommended in recommendation A–14–97 that “the FAA separate the flight training profiles

from the SFAR such that any updates to the profiles can be made without having to go through the rulemaking process.” The FAA interprets this recommendation from the NTSB to mean that the more prescriptive rule in SFAR No. 108 should be revised to a more flexible rule, such as a performance standard. This change will allow flight training profiles to be updated more rapidly in response to improved training best practices and guidance, thus improving operational safety of the MU–2B aircraft.

### III. Discussion of Final Rule

In order to provide a more flexible regulatory framework for MU–2B

training, the FAA is removing all appendices to SFAR No. 108 which contained many prescriptive requirements. With implementation of this rule, all MU–2B training must take place under an FAA approved MU–2B training program. Approval of all MU–2B training programs will be based on whether that program meets the standards of § 91.1705(h).

The following figure describes the changes made from SFAR No. 108 as a result of this final rule and this references the specific sections in the codifications of these requirements in part 91.

FIGURE 1—SUMMARY OF CHANGES TO SPECIAL FEDERAL AVIATION REGULATION NO. 108 MADE BY THIS FINAL RULE

Old section/paragraph	The new part 91, Subpart N reference	Description of change
Section 1, Applicability .....	§ 91.1701 Applicability .....	Provides new compliance dates. References approved MU–2B training program.
Section 2, Compliance and eligibility .....	§ 91.1703 Compliance and Eligibility .....	No substantive changes. Minor language change in paragraph (b) for clarity. Paragraph (g) revised to reference approved training program, adds a cross-reference to § 91.1705(h).
Section 3, Required pilot training .....	§ 91.1705 Required Pilot Training .....	No change other than to revise cross-references and reference approved training programs.
Paragraphs (a) through (g) .....		No change.
Table 1, Manufacturer’s checklists .....	§ 91.1705(g) .....	No change.
Section 4, Aeronautical experience .....	§ 91.1711 Training Program Approval .....	No change.
Section 5, Instruction, checking and evaluation .....	§ 91.1713 Instruction, Checking, and Evaluation .....	No change.
Section 6, Currency requirements and flight review .....	§ 91.1715 Currency Requirements and Flight Review .....	No change.
Section 7, Operating requirements .....	§ 91.1717 Operating Requirements .....	No change.
Section 8, Credit for prior training .....	§ 91.1719 Credit for Prior Testing .....	Updated to give credit for previous training under SFAR No. 108.
Section 9, Incorporation by reference .....	§ 91.1721 Incorporation by Reference .....	Revised to address current incorporation by reference requirements.
Section 10, Expiration .....	No Expiration .....	No change.
Appendix A, MU–2B General Training Requirements .....	§ 91.1707(a), § 91.1707(b), § 91.1707(c) .....	Removed. Table 1, Table 2, and Table 3 moved to § 91.1707.
Appendix B, MU–2B Ground Training Curriculum Contents .....	§ 91.1705(h)(1) .....	Removed. Training program standard added to § 91.1705(h)(1).
Appendix C, MU–2B Final Phase Check and Flight Training Requirements .....	§ 91.1705(h)(3) .....	Removed. Phase check requirements added to § 91.1705(h)(3).
Appendix D, MU–2B Maneuver Profiles .....	§ 91.1705(h)(2) .....	Removed. Training program standard added to § 91.1705(h)(2).

The following discussion describes the training program standard established for MU–2B training and contained in subpart N of part 91. These standards are found in § 91.1705(h), and an example of a training program implementing these standards may be found in Advisory Circular accompanying this rule.

Paragraph 91.1705(h) contains the training program standard which

replaces the prescriptive content of the former SFAR No. 108’s appendices. Paragraph 91.1705(h) requires all MU–2B training programs to include a ground training curriculum, a flight training curriculum, differences training for operators of modified MU–2B aircraft, icing training, and training program hours for ground and flight training. The standard in § 91.1705(h) will allow for updates to MU–2B

training programs and allow training providers to keep training programs up to date with current best practices while ensuring that the programs meet the FAA’s safety standards. By placing the specific guidance regarding training program content in an AC, the FAA will ensure that the training program specific guidelines can be updated as agency safety philosophy regarding training evolves. However, the requirements for

the training program will be retained in the regulations, ensuring that significant training adjustments would go through notice and comment rulemaking.

As required by § 91.1705(h)(1), an MU-2B training program must include a ground training curriculum sufficient to ensure pilot knowledge of MU-2B aircraft systems and procedures necessary for safe operation and proficient pilot knowledge of MU-2B aircraft. The FAA has replaced the prescriptive list of specific items listed in Appendix B to SFAR No. 108 with this performance standard.

As required by § 91.1705(h)(2), an MU-2B training program must also include a flight training curriculum with flight training maneuver profiles sufficient in number and detail to ensure pilot proficiency in all MU-2B operations for each MU-2B Model in accordance with MU-2B aircraft limitations, procedures, and MU-2B cockpit checklist<sup>3</sup> procedures applicable to the MU-2B Model being trained. Examples of MU-2B flight training maneuver profiles may be found in the FAA recommended MU-2B training program in the appendix of Advisory Circular (AC) AC 91-MU2B Mitsubishi MU-2B Training Program.

The FAA has included in subpart N of part 91 a list of specific maneuvers that an MU-2B training program must include in order to ensure pilots are adequately prepared for the unique safety challenges of operating an MU-2B. SFAR No. 108 was more prescriptive because it required these maneuvers in addition to requiring operators to follow all specific airspeeds and the order of procedures of the flight training maneuver profiles. The revised regulation allows for maneuver profiles to be updated with developing training and operational best practices. In order to obtain FAA approval, an MU-2B training program must contain the following flight training maneuver profiles for the MU-2B Model being trained:

- Normal takeoff with 5- and 20-degrees of flaps;
- Takeoff engine failure with 5- and 20- degrees of flaps;
- Takeoff engine failure on a runway or a rejected takeoff;
- Takeoff engine failure after liftoff when unable to climb. This maneuver may be completed in classroom or a flight training device only;
- Steep turns;
- Slow flight maneuvers;

- One engine inoperative maneuvering with a loss of directional control;
- Approach to stall in clean configuration and with wings level;
- Approach to stall in takeoff configuration with 15- to 30- degrees bank;
- Approach to stall in landing configuration with gear down and 40-degrees of flaps;
- Accelerated stall with no flaps;
- Emergency descent at low speed;
- Emergency descent at high speed;
- Unusual attitude recovery with the nose high;
- Unusual attitude recovery with the nose low;
- Normal landing with 20- and 40-degrees flaps;
- Go around and rejected landing;
- No flaps or 5- degrees flaps landing;
- One engine inoperative landing with 5- and 20- degrees of flaps;
- Crosswind landing;
- Instrument landing system (ILS) and missed approach;
- Two engine missed approach;
- One engine inoperative ILS and missed approach;
- One engine inoperative missed approach;
- Non-precision and missed approach;
- Non-precision CDFA and missed approach;
- One engine inoperative non-precision and missed approach;
- One engine inoperative non-precision CDFA and missed approach;
- Circling approach at weather minimums;
- One engine inoperative circling approach at weather minimums.

As required by § 91.1705(h)(3), an MU-2B training program must also include a final phase check sufficient to document pilot proficiency in the flight maneuvers as specified in the approved training programs phase check. This standard replaces the final phase check requirements in former Appendix C to the SFAR No. 108.

As required by § 91.1705(h)(4), an MU-2B training program must also include differences training sufficient to ensure pilot proficiency in each model of the MU-2B aircraft operated by a pilot who operates multiple MU-2B model variants concurrently. The differences training requirement is unchanged from the prior version of SFAR No. 108. Due to the age of the MU-2B fleet currently in operation, many MU-2B aircraft have been modified from the original factory configuration. Therefore, the FAA will continue to mandate differences training in order to ensure that those operators

who operate multiple versions of the MU-2B aircraft are adequately trained to safely operate various MU-2B configurations. MU-2B differences requirements have been removed from Appendix A of SFAR No. 108 and are now specified in § 91.1705(h)(4). Section 91.1705(h)(4) only includes differences for factory type design MU-2 aircraft while other applicable MU-2 differences are required by other FAA approved training programs (e.g. part 135 and 142 operations) and AC 91-MU2B. The hours requirement for Differences Training can be found in § 91.1707(c). Differences other than factory type design MU-2B differences applicable to MU-2B aircraft are highly recommended for part 91 MU-2B training. Due to the magnitude of these changes to the MU-2B fleet, additional training is necessary to ensure pilot proficiency.

As required by § 91.1705(h)(5), an MU-2B training program must also include icing training sufficient to ensure pilot knowledge and safe operation of the MU-2B aircraft in icing conditions as established by Airworthiness Directive 1997-20-14 or an Alternate Means of Compliance to Airworthiness Directive 2000-09-15, as amended.

As required by § 91.1705(h)(6), an MU-2B ground and flight training program must include the training hours identified by § 91.1707(a) for ground instruction, § 91.1707(b) for flight instruction and § 91.1707(c) for differences training. These training hours are identical to SFAR-108 training hours which were initially determined by the FAA's MU-2B FSB as the number of hours necessary to ensure the safe operation of the MU-2B aircraft.

As required by § 91.1707(e), an MU-2B training program must include examples of endorsements for compliance with § 91.1705(f) appropriate to the content of that specific MU-2B training program's compliance with the standards of SFAR No. 108. Section 91.1705(f) describes the endorsement required under § 91.1705 (a) and (b) must be made by:

- (1) A certificated flight instructor under part 61 or part 141 meeting the qualifications of § 91.1713; or
- (2) a training center evaluator authorized by the FAA to conduct MU-2B evaluation events at a part 142 Training Center meeting the qualifications of § 91.1713 or,
- (3) for persons operating the MU-2B for a part 119 certificate holder within the last 12 calendar months, the part 119 certificate holder's flight instructor if that instructor is authorized by the

<sup>3</sup> The MU-2B checklists were incorporated by reference into SFAR No. 108 by the Final Rule published on 02/06/2008, 73 FR 7034.

FAA meets the requirements of § 91.1713.

This section has been revised to include endorsements made by an authorized simulator instructor at an FAA 142 Training Center.

As required by § 91.1709(a), to obtain approval for an MU-2B training program, training providers must submit a proposed training program to the Administrator. Only training programs approved by the Administrator may be used to satisfy the standards of subpart N of part 91. Training providers may submit for approval the most current version of the appendix to AC 91-MU2B, which the FAA has determined meets the standards of this subpart.

Parts 135, 141, and 142 training providers must submit their proposed training program to their Principal Operations Inspector (POI) or Training Center Program Manager (TCPM) for approval and inclusion in their approved training curriculum.

Part 91 training providers do not have an established process for seeking approval of a training program; therefore, part 91 training providers must submit for approval a proposed training program to their jurisdictional FAA Flight Standards District Office (FSDO). The term 'part 91 training providers' refers to training providers providing training under part 61 authority for a part 91 operation. Part 91 training providers may submit for approval the most current version of the appendix to AC 91-MU2B which the FAA has determined meets the standards of subpart N of part 91. The FAA FSDO will issue a Letter of Authorization (LOA) to the training provider if the proposed training program meets the standards of subpart N of part 91. For MU-2B training providers providing training under part 91, training programs will be approved for 24 months, unless sooner superseded or rescinded. For more details on how to submit an MU-2B training program for approval, please see AC 91-MU2B.

Under § 91.1709(a)(3), the Administrator may require revision of an approved MU-2B training program at any time. A training provider must present its approved training program and FAA approval documentation to any representative of the Administrator, upon request.

#### IV. Advisory Circular

The FAA is publishing an approved MU-2B training program as an appendix in the AC 91-MU2B Mitsubishi MU-2B Training Program. This AC may be used by training providers to meet the requirements of

subpart N of part 91. Training providers may also use this AC as a reference for developing their own MU-2B training programs to submit for FAA approval pursuant to § 91.1709. The AC includes the SFAR No. 108 flight training maneuver profiles with appropriate revisions consistent with current training policy and guidance.

The following updates have been made to the MU-2B flight training profiles which have been removed from SFAR No. 108 and moved to AC 91-MU2B.

##### *One Engine Inoperative Maneuvering Loss of Directional Control*

The flight training maneuver profiles A-7, B-7, C-7 in the former Appendix D of SFAR No. 108 were incorrect regarding the procedures for setting power and trim for the demonstration of the one-engine-inoperative maneuver with a loss of directional control. The appendix D profile called for the MU-2B aircraft to be configured and trimmed for single engine flight prior to starting the maneuver. The FAA's Airplane Flying Handbook calls for the aircraft to be trimmed for two-engine flight at a slow airspeed and then for the power to be configured for single engine flight without re-trimming. Setting the configuration of the aircraft in the manner SFAR No. 108 required results in the rudder forces required prior to reaching the Velocity Minimum Control (Vmc) being less than the actual rudder forces required to maintain zero sideslip flight. The consequence of setting the configuration in that manner promotes an adverse training condition causing the pilot to under-control the aircraft in the event of an actual Vmc experience. The FAA has revised these maneuver profiles to reflect the proper settings and relocated them to the AC. Section 91.1705(h)(2) retains the requirement that MU-2B pilots train on this item.

##### *Continued Descent Final Approach (CDFA)*

An Advisory Circular (AC) published on January 20, 2011, for all aircraft operators, AC 120-108, would enhance the operational safety of an MU-2B aircraft during a non-precision instrument approach. The only non-precision approaches contained in the former version of SFAR No. 108 were those that use the "dive and drive" method, which consists of descending immediately after the final approach fix to the Minimum Descent Altitude (MDA) and then leveling off until reaching the next step down fix or the missed approach point, as appropriate. This SFAR 108 procedure, when accomplished with one engine

inoperative, required that the landing gear remain retracted until the pilot had visual contact with the landing runway environment. This SFAR 108 procedure could have resulted in the pilot forgetting to extend the landing gear prior to landing and was seen by many as an unstabilized approach. It also could have resulted in under shooting the visual approach path to the runway, causing a possible controlled-flight-into-terrain (CFIT) accident.

The SFAR 108 "dive and drive" procedure, with gear extension restrictions, was originally approved for the MU-2 by the FAA in 2006 during the FSB review of the MU-2 single engine capabilities. Demonstrations showed a limited or negative climb capability for the MU-2 with the gear in the down position during single engine operations. Since most single engine non-precision approaches result in the need to maintain altitude for a period of time prior to final descent to the landing runway, the FAA determined that a non-standard landing gear configuration would be necessary to safely accomplish the level off. The "dive and drive" procedure is described in the AC 120-108.

The revised procedure allows the pilot the option to extend the landing gear at the normal, final approach fix location and to fly a calculated glide path to the missed approach point, or derived decision altitude. This revised procedure prevents the need to maintain altitude at the MDA with the gear down which, in turn, improves safety. The FAA recognizes this new procedure and the FSB and Aircraft Evaluations Group (AEG) have now revised and published Revision 4 of the FSB Report for the MU-2. This version of the FSB Report contains provisions for incorporating the new procedures into MU-2B training and operation.

The CDFA procedure was not contained in the SFAR No. 108 flight training profiles. The FAA is adding CDFA procedures to the list of required flight training procedures as an additional procedure in § 91.1705(h)(2). These new profiles, in addition to the existing profiles, have been relocated to AC 91-MU2B.

##### *Stall Procedures*

Advisory Circular 120-109 introduced a new procedure for the proper recognition and recovery from a stall for all aircraft. The AC 120-109 is supplemented by Safety Advisory for Operators (SAFO) 10012 standardizing the procedure for all aircraft and training programs. The latest revision of the FAA's Commercial Practical Test Standards calls for a change to the

standard for performance and evaluation of stall procedures.

AC 120-109 resulted from an FAA and industry study of two well-publicized accidents, Colgan Air Flight 3407 and Air France Flight 447. In both of these accidents, the pilots were not immediately aware that the aircraft were stalled, and the pilots did not attempt to recover correctly, resulting in the loss of the aircraft and all passengers.

The maneuver profiles in SFAR No. 108 (profiles A-8 through A-11, B-8 through B-11, and C-8 through C-11) required operators to perform all stall recoveries with a "minimal loss of altitude." This standard of performance has been redefined for all FAA and industry training for other aircraft, and new profiles have been published in MU-2B Training Program AC to instruct pilots to perform a stall recovery using a positive reduction of angle of attack method. This procedure change is important to ensure that pilots safely recover from a stall and do not cause a secondary stall of the aircraft.

Also, in the past, during advanced training in high performance aircraft like the MU-2B, pilot training did not include full stall recoveries. Historically, recovery would be initiated at the first indication of the stall, which in the case of the MU-2B is a stick shaker vibrating the yoke in order to warn the pilot of an impending stall. Most MU-2B stall training never reaches a full aerodynamic stall or even pre-stall buffet. In those cases, recovery without having to substantially lower the nose of the aircraft is possible, resulting in a minimum loss of altitude. In a full stall, however, a pilot must positively lower the nose to reattach the flow of air to the wing prior to adding power. Otherwise, the pilot risks a secondary stall as the nose rises from addition of power, and/or a torque roll occurs opposite the propeller rotational direction. The new standardized method of recovery from any level of stall condition is to substantially lower the nose.

Recent changes to the FAA's Practical Test Standards direct examiners to assess a pilot's ability to recover promptly at the "onset" (buffeting) stall condition. These revised profiles and AC 120-109 call out procedures for accomplishing this stall recognition and recovery from an autopilot 'ON' flight configuration, thereby simulating a stall catching the pilot by surprise and creating more realistic surprise and startle in training. The revised maneuver profiles for stall recognition and recovery have been relocated to the AC.

### *Compliance Dates*

As required by § 91.1701, after November 7, 2016, all training conducted in an MU-2B must follow an MU-2B training program that meets the standards of this Subpart of part 91. This 60-day period gives training providers time to adjust their training programs to meet the standards of this subpart and to seek FAA approval for training provider developed training programs.

Also required by § 91.1701, this subpart is immediately applicable when effective to all persons who operate a Mitsubishi MU-2B series airplane, including those who act as pilot-in-command (PIC), act as second-in-command (SIC), or other persons who manipulate the controls while under the supervision of a PIC.

As required by § 91.1719, Initial/transition, requalification, or recurrent training conducted prior to November 7, 2016, compliant with SFAR No. 108, Section 3, effective March 6, 2008, is considered to be compliant with this subpart, if the student met the eligibility requirements for the applicable category of training and the student's instructor met the experience requirements of this subpart. This 60-day period allows current operators to continue training under SFAR No. 108 and allows for a seamless transition to training programs under this subpart.

The FAA is immediately relocating and updating the content of SFAR No. 108 to this subpart in order to be in accordance with current FAA policy regarding the safest and most effective means to conduct training in the area of stall recognition and recovery, continuous descent final approach procedures, and one engine inoperative maneuvering. The FAA understands that MU-2B training is currently being conducted consistently with FAA policy and considers such training to be critical to the safe operation of the aircraft. For that reason, the FAA does not anticipate any disruptions in training or operations of MU-2B aircraft as a result of the immediate effective date for this rule. This rulemaking is necessary to align the regulation with the safest, best means to conduct training in the MU-2B.

## **V. Regulatory Notices and Analyses**

### *A. Regulatory Evaluation*

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the

intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this rule.

Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed or final rule does not warrant a full evaluation, this order permits that a statement to that effect and the basis for it are to be included in the preamble if a full regulatory evaluation of the cost and benefits is not prepared. Such a determination has been made for this rule. The reasoning for this determination follows:

The purpose and benefit of this action is to correct safety related inaccuracies in the regulation and streamline the process for updating MU-2B flight training profiles should any inaccuracies be discovered or should training requirements or policy need to be revised and updated in the future. As a result of this action, operators, training providers, and safety officials will have timely, accurate training material. This action is important to minimize future accidents.

Pilots in need of MU-2B training can choose from either a training center or hiring one of the approximately 20 MU-2B qualified instructors. Currently, there are three primary training providers that offer FAA approved MU-2B training.

There were a number of conflicts between former SFAR No. 108 and best practices and FAA guidance, which demonstrate a better safety record. The FAA's Kansas City Aircraft Evaluation Group (AEG) and Mitsubishi Heavy Industries (MHI) have documented that the SFAR conflicted with new and

revised FAA training requirements, policy, guidance and safe operating practices. These practices are set forth in the Airline Transport Pilot Practical Test Standards (PTS); Commercial Pilot PTS; FAA Notice N8900.205, Enhanced Stall and Stick Pusher Training; Advisory Circular (AC) 120-109; Stall and Stick Pusher Training; and AC 120-108, Continuous Descent Final Approach (CDFA).

SFAR No. 108 mandates training, experience, and operating requirements to improve the level of operational safety for the MHI MU-2B series airplane. SFAR No. 108 contained inaccurate training profiles and was misaligned with current FAA flight training policy. Since the enactment of SFAR No. 108, there have been two accidents with five fatalities. The SFAR required training in accordance with inaccurate MU-2B flight training profiles. The National Transportation Safety Board (NTSB) recommended that the FAA correct these inaccuracies as soon as is practical. New stall profiles have been created for instructing the pilot to perform a stall recovery using a positive reduction of angle of attack method. This procedure change is important to ensure that pilots safely recover from a stall and do not cause a secondary stall of the aircraft.

Besides the inaccurate training profiles, SFAR 108 was not aligned with current FAA Continuous Descent Final Approach (CDFA) procedures flight training policy published in AC 120-108 and published in the MU-2 FSB Report, Revision 4. FAA CDFA procedures were not contained in the SFAR No. 108 MU-2B flight training profiles. Including these procedures in subpart N of part 91 will allow operators of the MHI MU-2B series airplane to follow the most current procedures when operating an appropriately equipped MHI MU-2B series airplane. The new CDFA flight training supplements training already contained in the SFAR and provides an alternate procedure that may be used at the discretion of the pilot.

The flight training maneuver profiles A-7, B-7, C-7 in former Appendix D of the SFAR No. 108 were incorrect regarding the procedures for setting power and trim for the demonstration of the one-engine-inoperative maneuver with a loss of directional control. Furthermore, the maneuver profiles in the SFAR No. 108 (profiles A-8 through A-11, B-8 through B-11, and C-8 through C-11) required operators to perform all stall recoveries with a "minimal loss of altitude". This requirement has been removed from all FAA and industry training documents

for other aircraft. This rule relocates and updates the content of SFAR No. 108 to this subpart in order to eliminate safety concerns resulting from mandating incorrect and out-of-date best practices for training in and operating the MU-2B.

With this action, all MU-2B training must take place under an FAA approved MU-2B training program. FAA approval of all MU-2B training programs will be based on whether that program meets the performance standards of § 91.1705(h). The FAA is also publishing an AC for the Mitsubishi MU-2B Training Program. This AC Appendix contains a recommended MU-2B training program which may be used by training providers to meet the requirements this subpart, or as a reference for the training providers to develop their own MU-2B training programs.

By following the AC training guidance, there will be no new training costs associated with this revised training guidance. The requalification and recurrent training hours for ground instruction and flight instruction remain the same. All MU-2B pilots will have to take training compliant with this subpart when their 12-month recurrent training requirement comes due, but not before. Nothing in this subpart mandates new training outside the existing currency cycle.

By following the AC training guidance, the change in existing training, results in no new costs. Thus, the cost of the rule will be minimal.

The FAA has, therefore, determined that this rule is not a "significant regulatory action" as defined in section 3(f) of Executive Order 12866, and is not "significant" as defined in DOT's Regulatory Policies and Procedures.

#### *B. Regulatory Flexibility Determination*

The Regulatory Flexibility Act of 1980 (Public Law 96-354) (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation." To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration." The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a

significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

MU-2 aircraft are owned by a substantial number of small entities. However, the FAA believes that this rule does not have a significant economic impact on a substantial number of small entities for the following reasons. With this rule, the updated procedures and new profiles that are already in place for other FAA approved training programs will become mandatory for MU-2B pilots. By following the AC training guidance, the change in existing training, results in no new costs. Nothing in this rule mandates new training outside the existing cycle.

Therefore, as provided in section 605(b), the head of the FAA certifies that this rulemaking will not result in a significant economic impact on a substantial number of small entities.

#### *C. International Trade Impact Assessment*

The Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this final rule and determined that the rule would protect safety and is not considered an unnecessary obstacle to foreign commerce.



#### D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (in 1995 dollars) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a “significant regulatory action.” The FAA currently uses an inflation-adjusted value of \$155 million in lieu of \$100 million. This final rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

#### E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement unless it displays a currently valid Office of Management and Budget (OMB) control number. The FAA has determined that there is a new requirement for information collection associated with this immediately adopted final rule and is requesting the Office of Management and Budget to grant an immediate emergency clearance on the paperwork package that it is submitting. Therefore, notification will be made to the public when a clearance is received. Following is a summary of the information collection activity.

*Title:* MU-2B Series Airplane Training Requirements Update

*Summary/Need:* This subpart requires qualified instructors providing MU-2B training in part 91 operations to submit a proposed MU-2B training program to the FAA for approval. This information collection is necessary to the FAA’s mission to ensure aviation safety because it will enable the FAA to identify MU-2B qualified instructors providing training under this subpart and to oversee compliance.

*Respondents:* The respondents are an estimated 20-training providers operating under part 91 that are qualified to provide training for the MU-2B aircraft in accordance with subpart N of part 91.

*Burden:* The burden associated with this subpart is minimal to the part 91 training providers.

*Use:* It will enable the FAA to identify MU-2B qualified instructors currently providing training under SFAR No. 108 and oversee compliance with subpart N of part 91.

*Frequency:* Part 91 training providers will have to submit their training programs to the FAA every two years.

#### F. International Compatibility and Cooperation

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these proposed regulations.

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609, and has determined that this action would have no effect on international regulatory cooperation.

#### G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5-6.6 and involves no extraordinary circumstances.

### VI. Executive Order Determinations

#### A. Executive Order 13132, Federalism

The FAA has analyzed this immediately adopted final rule under the principles and criteria of Executive Order 13132, Federalism. The agency determined that this action will not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, does not have Federalism implications.

#### B. Executive Order 13211, Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this immediately adopted final rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it is not a “significant energy action” under the executive order and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

### VII. How To Obtain Additional Information

#### A. Rulemaking Documents

An electronic copy of a rulemaking document may be obtained by using the Internet—

1. Search the Federal eRulemaking Portal (<http://www.regulations.gov>);
2. Visit the FAA’s Regulations and Policies Web page at [http://www.faa.gov/regulations\\_policies/](http://www.faa.gov/regulations_policies/) or
3. Access the Government Publishing Office’s Web page at: <http://www.gpo.gov/fdsys/>.

Copies may also be obtained by sending a request (identified by amendment or docket number of this rulemaking) to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9677.

#### B. Comments Submitted to the Docket

Comments received may be viewed by going to <http://www.regulations.gov> and following the online instructions to search the docket number for this action. Anyone is able to search the electronic form of all comments received into any of the FAA’s dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.).

#### C. Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document, may contact its local FAA official, or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. To find out more about SBREFA on the Internet, visit [http://www.faa.gov/regulations\\_policies/rulemaking/sbre\\_act/](http://www.faa.gov/regulations_policies/rulemaking/sbre_act/).



**List of Subjects****14 CFR Part 35**

Aircraft, Aviation safety.

**14 CFR Part 91**

Aircraft, Airmen, Airports, Aviation safety, Freight, Incorporation by reference, Reporting and recordkeeping requirements.

**14 CFR Part 135**

Air taxis, Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Drug testing, Reporting and recordkeeping requirements.

**The Amendment**

In consideration of the foregoing, the Federal Aviation Administration amends chapter I of title 14, Code of Federal Regulations as follows:

**PART 61—CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS**

- 1. The authority citation for part 61 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 40113, 44701–44703, 44707, 44709–44711, 44729, 44903, 45102–45103, 45301–45302.

- 2. Remove Special Federal Aviation Regulation No. 108.

**PART 91—GENERAL OPERATING AND FLIGHT RULES**

- 3. The authority citation for part 91 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 1155, 40101, 40103, 40105, 40113, 40120, 44101, 44111, 44701, 44704, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, 47534, articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180), (126 Stat. 11).

- 4. Effective November 7, 2017, remove Special Federal Aviation Regulation No. 108—Mitsubishi MU–2B Series Special Training, Experience, and Operating Requirements.

- 5. Amend part 91 by adding subpart N to read as follows:

**Subpart N—Mitsubishi MU–2B Series Special Training, Experience, and Operating Requirements**

Sec.

91.1701 Applicability  
91.1703 Compliance and eligibility.  
91.1705 Required pilot training.  
91.1707 Training program hours.  
91.1709 Training program approval.  
91.1711 Aeronautical experience.  
91.1713 Instruction, checking, and evaluation.  
91.1715 Currency requirements and flight review.

91.1717 Operating requirements.  
91.1719 Credit for prior training.  
91.1721 Incorporation by reference.

**§ 91.1701 Applicability.**

(a) On and after November 7, 2016, all training conducted in an MU–2B must follow an approved MU–2B training program that meets the standards of this subpart.

(b) This subpart applies to all persons who operate a Mitsubishi MU–2B series airplane, including those who act as pilot in command, act as second-in-command, or other persons who manipulate the controls while under the supervision of a pilot in command.

(c) This subpart also applies to those persons who provide pilot training for a Mitsubishi MU–2B series airplane. The requirements in this subpart are in addition to the requirements of parts 61, 91, and 135 of this chapter.

**§ 91.1703 Compliance and eligibility.**

(a) Except as provided in paragraph (b) of this section, no person may manipulate the controls, act as PIC, act as second-in-command, or provide pilot training for a Mitsubishi MU–2B series airplane unless that person meets the requirements of this subpart.

(b) A person who does not meet the requirements of this subpart may manipulate the controls of a Mitsubishi MU–2B series airplane if a pilot in command who meets the requirements of this subpart is occupying a pilot station, no passengers or cargo are carried on board the airplane, and the flight is being conducted for one of the following reasons—

(1) The pilot in command is providing pilot training to the manipulator of the controls;

(2) The pilot in command is conducting a maintenance test flight with a second pilot or certificated mechanic; or

(3) The pilot in command is conducting simulated instrument flight and is using a safety pilot other than the pilot in command who manipulates the controls for the purposes of § 91.109(b).

(c) A person is required to complete *Initial/transition training* if that person has fewer than—

(1) 50 hours of documented flight time manipulating the controls while serving as pilot in command of a Mitsubishi MU–2B series airplane in the preceding 24 months; or

(2) 500 hours of documented flight time manipulating the controls while serving as pilot in command of a Mitsubishi MU–2B series airplane.

(d) A person is eligible to receive *Requalification training* in lieu of *Initial/transition training* if that person has at least—

(1) 50 hours of documented flight time manipulating the controls while serving as pilot in command of a Mitsubishi MU–2B series airplane in the preceding 24 months; or

(2) 500 hours of documented flight time manipulating the controls while serving as pilot in command of a Mitsubishi MU–2B series airplane.

(e) A person is required to complete *Recurrent training* within the preceding 12 months. Successful completion of *Initial/transition* or *Requalification training* within the preceding 12 months satisfies the requirement of *Recurrent training*. A person must successfully complete *Initial/transition training* or *Requalification training* before being eligible to receive *Recurrent training*.

(f) Successful completion of *Initial/transition training* or *Requalification training* is a one-time requirement. A person may elect to retake *Initial/transition training* or *Requalification training* in lieu of *Recurrent training*.

(g) A person is required to complete *Differences training* in accordance with an FAA approved MU–2B training program if that person operates more than one MU–2B model as specified in § 91.1707(c).

**§ 91.1705 Required pilot training.**

(a) Except as provided in § 91.1703(b), no person may manipulate the controls, act as pilot in command, or act as second-in-command of a Mitsubishi MU–2B series airplane for the purpose of flight unless—

(1) The requirements for ground and flight training on *Initial/transition*, *Requalification*, *Recurrent*, and *Differences training* have been completed in accordance with an FAA approved MU–2B training program that meets the standards of this subpart; and

(2) That person's logbook has been endorsed in accordance with paragraph (f) of this section.

(b) Except as provided in § 91.1703(b), no person may manipulate the controls, act as pilot in command, or act as second-in-command, of a Mitsubishi MU–2B series airplane for the purpose of flight unless—

(1) That person satisfactorily completes, if applicable, annual *Recurrent pilot training* on the *Special Emphasis Items*, and all items listed in the *Training Course Final Phase Check* in accordance with an FAA approved MU–2B training program that meets the standards of this subpart; and

(2) That person's logbook has been endorsed in accordance with paragraph (f) of this section.

(c) Satisfactory completion of the competency check required by § 135.293 of this chapter within the preceding 12

calendar months may not be substituted for the Mitsubishi MU-2B series airplane annual recurrent flight training of this section.

(d) Satisfactory completion of a Federal Aviation Administration sponsored pilot proficiency program, as described in § 61.56(e) of this chapter may not be substituted for the Mitsubishi MU-2B series airplane annual recurrent flight training of this section.

(e) If a person complies with the requirements of paragraph (a) or (b) of this section in the calendar month before or the calendar month after the month in which compliance with these paragraphs are required, that person is considered to have accomplished the training requirement in the month the training is due.

(f) The endorsement required under paragraph (a) and (b) of this section must be made by—

(1) A certificated flight instructor or a simulator instructor authorized by a Training Center certificated under part 142 of this chapter and meeting the qualifications of § 91.1713; or

(2) For persons operating the Mitsubishi MU-2B series airplane for a 14 CFR part 119 certificate holder within the last 12 calendar months, the part 119 certificate holder's flight instructor if authorized by the FAA and if that flight instructor meets the requirements of § 91.1713.

(g) All training conducted for a Mitsubishi MU-2B series airplane must be completed in accordance with an MU-2B series airplane checklist that has been accepted by the Federal Aviation Administration's MU-2B Flight Standardization Board or the applicable MU-2B series checklist (incorporated by reference, see § 91.1721).

(h) MU-2B training programs must contain ground training and flight training sufficient to ensure pilot proficiency for the safe operation of MU-2B aircraft, including:

(1) A ground training curriculum sufficient to ensure pilot knowledge of MU-2B aircraft, aircraft systems, and procedures, necessary for safe operation; and

(2) Flight training curriculum including flight training maneuver profiles sufficient in number and detail to ensure pilot proficiency in all MU-2B operations for each MU-2B model in correlation with MU-2B limitations, procedures, aircraft performance, and MU-2B Cockpit Checklist procedures

applicable to the MU-2B model being trained. A MU-2B training program must contain, at a minimum, the following flight training maneuver profiles applicable to the MU-2B model being trained:

(i) Normal takeoff with 5- and 20-degrees flaps;

(ii) Takeoff engine failure with 5- and 20- degrees flaps;

(iii) Takeoff engine failure on runway or rejected takeoff;

(iv) Takeoff engine failure after liftoff—unable to climb (may be completed in classroom or flight training device only);

(v) Steep turns;

(vi) Slow flight maneuvers;

(vii) One engine inoperative maneuvering with loss of directional control;

(viii) Approach to stall in clean configuration and with wings level;

(ix) Approach to stall in takeoff configuration with 15- to 30- degrees bank;

(x) Approach to stall in landing configuration with gear down and 40-degrees of flaps;

(xi) Accelerated stall with no flaps;

(xii) Emergency descent at low speed;

(xiii) Emergency descent at high speed;

(xiv) Unusual attitude recovery with the nose high;

(xv) Unusual attitude recovery with the nose low;

(xvi) Normal landing with 20- and 40-degrees flaps;

(xvii) Go around and rejected landing;

(xviii) No flap or 5- degrees flaps landing;

(xix) One engine inoperative landing with 5- and 20- degrees flaps;

(xx) Crosswind landing;

(xxi) Instrument landing system (ILS) and missed approach ;

(xxii) Two engine missed approach;

(xxiii) One engine inoperative ILS and missed approach;

(xxiv) One engine inoperative missed approach;

(xxv) Non-precision and missed approach;

(xxvi) Non-precision continuous descent final approach and missed approach;

(xxvii) One engine inoperative non-precision and missed approach;

(xxviii) One engine inoperative non-precision CDFA and missed approach;

(xxix) Circling approach at weather minimums;

(xxx) One engine inoperative circling approach at weather minimums.

(3) Flight training must include a final phase check sufficient to document pilot proficiency in the flight training maneuver profiles at the completion of training; and

(4) Differences training for applicable MU-2B model variants sufficient to ensure pilot proficiency in each model operated. Current MU-2B differences requirements are specified in § 91.1707(c). A person must complete Differences training if a person operates more than one MU-2B model as specified in § 91.1707(c). Differences training between the factory type design K and M models of the MU-2B airplane, and the factory type design J and L models of the MU-2B airplane, may be accomplished with Level A training. All other factory type design differences training must be accomplished with Level B training unless otherwise specified in § 91.1707(c). A Level A or B differences training is not a recurring annual requirement. Once a person has completed Initial Level A or B Differences training between the applicable different models, no additional differences training between those models is required.

(5) Icing training sufficient to ensure pilot knowledge and safe operation of the MU-2B aircraft in icing conditions as established by the FAA;

(6) Ground and flight training programs must include training hours identified by § 91.1707(a) for ground instruction, § 91.1707(b) for flight instruction, and § 91.1707(c) for differences training.

(i) No training credit is given for second-in-command training and no credit is given for right seat time under this program. Only the sole manipulator of the controls of the MU-2B airplane, flight training device, or Level C or D simulator can receive training credit under this program;

(ii) An MU-2B airplane must be operated in accordance with an FAA approved MU-2B training program that meets the standards of this subpart and the training hours in § 91.1707.

(7) Endorsements given for compliance with paragraph (f) of this section must be appropriate to the content of that specific MU-2B training program's compliance with standards of this subpart.

#### § 91.1707 Training program hours.

(a) Ground instruction hours are listed in the following table:

Initial/transition	Requalification	Recurrent
20 hours .....	12 hours .....	8 hours.

(b) Flight instruction hours are listed in the following table:

Initial/transition	Requalification	Recurrent
12 hours with a minimum of 6 hours at level E	8 hours level C or level E .....	4 hours at level E, or 6 hours at level C.

(c) Differences training hours are listed in the following table:

2 factory type design models concurrently .....	1.5 hours required at level B.
More than 2 factory type design models concurrently .....	3 hours at level B.
Each additional factory type design model added separately .....	1.5 hours at level B.

(d) Definitions of levels of training as used in this subpart:

(1) LEVEL A Training—Training that is conducted through self-instruction by the pilot.

(2) LEVEL B Training—Training that is conducted in the classroom environment with the aid of a qualified instructor who meets the requirements of this subpart.

(3) LEVEL C Training—Training that is accomplished in an FAA-approved Level 5 or 6 flight training device. In addition to the basic FTD requirements, the FTD must be representative of the MU-2B cockpit controls and be specifically approved by the FAA for the MU-2B airplane.

(4) Level E Training—Training that must be accomplished in the MU-2B airplane, Level C simulator, or Level D simulator.

#### **§ 91.1709 Training program approval.**

To obtain approval for an MU-2B training program, training providers must submit a proposed training program to the Administrator.

(a) Only training programs approved by the Administrator may be used to satisfy the standards of this subpart.

(b) For part 91 training providers, training programs will be approved for 24 months, unless sooner superseded or rescinded.

(c) The Administrator may require revision of an approved MU-2B training program at any time.

(d) A training provider must present its approved training program and FAA approval documentation to any representative of the Administrator, upon request.

#### **§ 91.1711 Aeronautical experience.**

No person may act as a pilot in command of a Mitsubishi MU-2B series airplane for the purpose of flight unless

that person holds an airplane category and multi-engine land class rating, and has logged a minimum of 100 flight hours of PIC time in multi-engine airplanes.

#### **§ 91.1713 Instruction, checking, and evaluation.**

(a) *Flight Instructor (Airplane)*. No flight instructor may provide instruction or conduct a flight review in a Mitsubishi MU-2B series airplane unless that flight instructor

(1) Meets the pilot training and documentation requirements of § 91.1705 before giving flight instruction in the Mitsubishi MU-2B series airplane;

(2) Meets the currency requirements of §§ 91.1715(a) and 91.1715(c)

(3) Has a minimum total pilot time of 2,000 pilot-in-command hours and 800 pilot-in-command hours in multiengine airplanes; and

(4) Has:

(i) 300 pilot-in-command hours in the Mitsubishi MU-2B series airplane, 50 hours of which must have been within the preceding 12 months; or

(ii) 100 pilot-in-command hours in the Mitsubishi MU-2B series airplane, 25 hours of which must have been within the preceding 12 months, and 300 hours providing instruction in a FAA-approved Mitsubishi MU-2B simulator or FAA-approved Mitsubishi MU-2B flight training device, 25 hours of which must have been within the preceding 12 months.

(b) *Flight Instructor (Simulator/Flight Training Device)*. No flight instructor may provide instruction for the Mitsubishi MU-2B series airplane unless that instructor meets the requirements of this paragraph—

(1) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must

meet the pilot training and documentation requirements of § 91.1705 before giving flight instruction for the Mitsubishi MU-2B series airplane;

(2) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must meet the currency requirements of § 91.1715(c) before giving flight instruction for the Mitsubishi MU-2B series airplane;

(3) Each flight instructor who provides flight training for the Mitsubishi MU-2B series airplane must have:

(i) A minimum total pilot time of 2000 pilot-in-command hours and 800 pilot-in-command hours in multiengine airplanes; and

(ii) Within the preceding 12 months, either 50 hours of Mitsubishi MU-2B series airplane pilot-in-command experience or 50 hours providing simulator or flight training device instruction for the Mitsubishi MU-2B.

(c) *Checking and evaluation*. No person may provide checking or evaluation for the Mitsubishi MU-2B series airplane unless that person meets the requirements of this paragraph—

(1) For the purpose of checking, designated pilot examiners, training center evaluators, and check airmen must have completed the appropriate training in the Mitsubishi MU-2B series airplane in accordance with § 91.1705;

(2) For checking conducted in the Mitsubishi MU-2B series airplane, each designated pilot examiner and check airman must have 100 hours pilot-in-command flight time in the Mitsubishi MU-2B series airplane and maintain currency in accordance with § 91.1715.

**§ 91.1715 Currency requirements and flight review.**

(a) The takeoff and landing currency requirements of § 61.57 of this chapter must be maintained in the Mitsubishi MU-2B series airplane. Takeoff and landings in other multiengine airplanes do not meet the takeoff landing currency requirements for the Mitsubishi MU-2B series airplane. Takeoff and landings in either the short-body or long-body Mitsubishi MU-2B model airplane may be credited toward takeoff and landing currency for both Mitsubishi MU-2B model groups.

(b) Instrument experience obtained in other category and class of aircraft may be used to satisfy the instrument currency requirements of § 61.57 of this chapter for the Mitsubishi MU-2B series airplane.

(c) Satisfactory completion of a flight review to satisfy the requirements of § 61.56 of this chapter is valid for operation of a Mitsubishi MU-2B series airplane only if that flight review is conducted in a Mitsubishi MU-2B series airplane or an MU-2B Simulator approved for landings with an approved course conducted under part 142 of this chapter. The flight review for Mitsubishi MU-2B series airplanes must include the *Special Emphasis Items*, and all items listed in the *Training Course Final Phase Check* in accordance with an approved MU-2B Training Program.

(d) A person who successfully completes the Initial/transition, Recurrent, or Recurrent training requirements under § 91.1705 of this chapter also meet the requirements of § 61.56 of this chapter and need not accomplish a separate flight review provided that at least 1 hour of the flight training was conducted in the Mitsubishi MU-2B series airplane or an MU-2B Simulator approved for landings with an approved course conducted under part 142 of this chapter.

**§ 91.1717 Operating requirements.**

(a) Except as provided in paragraph (b) of this section, no person may operate a Mitsubishi MU-2B airplane in single pilot operations unless that airplane has a functional autopilot.

(b) A person may operate a Mitsubishi MU-2B airplane in single pilot operations without a functional autopilot when—

(1) Operating under day visual flight rule requirements; or

(2) Authorized under a FAA approved minimum equipment list for that airplane, operating under instrument flight rule requirements in daytime visual meteorological conditions.

(c) No person may operate a Mitsubishi MU-2B series airplane unless a copy of the appropriate Mitsubishi Heavy Industries MU-2B Airplane Flight Manual is carried on board the airplane and is accessible during each flight at the pilot station.

(d) No person may operate a Mitsubishi MU-2B series airplane unless an MU-2B series airplane checklist, appropriate for the model being operated and accepted by the Federal Aviation Administration MU-2B Flight Standardization Board, is accessible for each flight at the pilot station and is used by the flight crewmembers when operating the airplane.

(e) No person may operate a Mitsubishi MU-2B series airplane contrary to the standards of this subpart.

(f) If there are any differences between the training and operating requirements of this subpart and the MU-2B Airplane Flight Manual's procedures sections (Normal, Abnormal, and Emergency) and the MU-2B airplane series checklist incorporated by reference in § 91.1721, the person operating the airplane must operate the airplane in accordance with the training specified in this subpart.

**§ 91.1719 Credit for prior training.**

Initial/transition, requalification, recurrent or Level B differences training conducted prior to November 7, 2016, compliant with SFAR No. 108, Section 3 of this part, is considered to be compliant with this subpart, if the student met the eligibility requirements for the applicable category of training and the student's instructor met the experience requirements of this subpart.

**§ 91.1721 Incorporation by reference.**

(a) The Mitsubishi Heavy Industries MU-2B Cockpit Checklists are incorporated by reference into this part. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at U.S. Department of Transportation, Docket Management Facility, Room W 12-140, West Building Ground Floor, 1200 New Jersey Ave. SE., Washington, DC 20590-0001, or at the National Archives and Records Administration, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(b) Turbine Aircraft Services, Inc., 4550 Jimmy Doolittle Drive, Addison, Texas 75001, USA.

(1) Mitsubishi Heavy Industries MU-2B Checklists:

(i) Cockpit Checklist, Model MU-2B-60, Type Certificate A10SW, MHI Document No. YET06220C, accepted by FSB on February 12, 2007.

(ii) Cockpit Checklist, Model MU-2B-40, Type Certificate A10SW, MHI Document No. YET06256A, accepted by FSB on February 12, 2007.

(iii) Cockpit Checklist, Model MU-2B-36A, Type Certificate A10SW, MHI Document No. YET06257B, accepted by FSB on February 12, 2007.

(iv) Cockpit Checklist, Model MU-2B-36, Type Certificate A2PC, MHI Document No. YET06252B, accepted by FSB on February 12, 2007.

(v) Cockpit Checklist, Model MU-2B-35, Type Certificate A2PC, MHI Document No. YET06251B, accepted by FSB on February 12, 2007.

(vi) Cockpit Checklist, Model MU-2B-30, Type Certificate A2PC, MHI Document No. YET06250A, accepted by FSB on March 2, 2007.

(vii) Cockpit Checklist, Model MU-2B-26A, Type Certificate A10SW, MHI Document No. YET06255A, accepted by FSB on February 12, 2007.

(viii) Cockpit Checklist, Model MU-2B-26, Type Certificate A2PC, MHI Document No. YET06249A, accepted by FSB on March 2, 2007.

(ix) Cockpit Checklist, Model MU-2B-26, Type Certificate A10SW, MHI Document No. YET06254A, accepted by FSB on March 2, 2007.

(x) Cockpit Checklist, Model MU-2B-25, Type Certificate A10SW, MHI Document No. YET06253A, accepted by FSB on March 2, 2007.

(xi) Cockpit Checklist, Model MU-2B-25, Type Certificate A2PC, MHI Document No. YET06248A, accepted by FSB on March 2, 2007.

(xii) Cockpit Checklist, Model MU-2B-20, Type Certificate A2PC, MHI Document No. YET06247A, accepted by FSB on February 12, 2007.

(xv) Cockpit Checklist, Model MU-2B-15, Type Certificate A2PC, MHI Document No. YET06246A, accepted by FSB on March 2, 2007.

(xvi) Cockpit Checklist, Model MU-2B-10, Type Certificate A2PC, MHI Document No. YET06245A, accepted by FSB on March 2, 2007.

(xvii) Cockpit Checklist, Model MU-2B, Type Certificate A2PC, MHI Document No. YET06244A, accepted by FSB on March 2, 2007.

(2) [Reserved]

## **PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT**

■ 6. The authority citation for part 135 continues to read as follows:

**Authority:** 49 U.S.C. 106(f), 106(g), 41706, 40113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722, 44730, 45101–45105; Pub. L. 112–95, 126 Stat. 58 (49 U.S.C. 44730).

■ **7. Remove Special Federal Aviation Regulation No. 108.**

Issued under authority provided by 49 U.S.C. 106(f), 44701(a), and 44703 in Washington, DC, on July 11, 2016.

**Michael P. Huerta,**  
Administrator.

[FR Doc. 2016–21356 Filed 9–6–16; 8:45 am]

**BILLING CODE 4910–13–P**

## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### 15 CFR Part 744

[Docket No. 160617543–6543–01]

RIN 0694–AH02

#### Russian Sanctions: Addition of Certain Entities to the Entity List

**AGENCY:** Bureau of Industry and Security, Commerce.

**ACTION:** Final rule.

**SUMMARY:** The Bureau of Industry and Security (BIS) amends the Export Administration Regulations (EAR) by adding eighty-one entities under eighty-six entries to the Entity List. The eighty-one entities who are added to the Entity List have been determined by the U.S. Government to be acting contrary to the national security or foreign policy interests of the United States. BIS is taking this action to ensure the efficacy of existing sanctions on the Russian Federation (Russia) for violating international law and fueling the conflict in eastern Ukraine. These entities will be listed on the Entity List under the destinations of the Crimea region of Ukraine, Hong Kong, India, and Russia.

**DATES:** This rule is effective September 7, 2016.

**FOR FURTHER INFORMATION CONTACT:** Chair, End-User Review Committee, Office of the Assistant Secretary, Export Administration, Bureau of Industry and Security, Department of Commerce, Phone: (202) 482–5991, Email: [ERC@bis.doc.gov](mailto:ERC@bis.doc.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

The Entity List (Supplement No. 4 to Part 744 of the EAR) identifies entities and other persons reasonably believed to be involved in, or that pose a significant risk of being or becoming

involved in, activities that are contrary to the national security or foreign policy of the United States. The EAR imposes additional licensing requirements on, and limits the availability of most license exceptions for, exports, reexports, and transfers (in-country) to those persons or entities listed on the Entity List. The license review policy for each listed entity is identified in the License Review Policy column on the Entity List and the impact on the availability of license exceptions is described in the **Federal Register** notice adding entities or other persons to the Entity List. BIS places entities on the Entity List based on certain sections of part 744 (Control Policy: End-User and End-Use Based) and part 746 (Embargoes and Other Special Controls) of the EAR.

The End-user Review Committee (ERC) is composed of representatives of the Departments of Commerce (Chair), State, Defense, Energy, and where appropriate, the Treasury. The ERC makes decisions to add an entry to the Entity List by majority vote and to remove or modify an entry by unanimous vote. The Departments represented on the ERC have approved these changes to the Entity List.

#### Entity List Additions

##### Additions to the Entity List

This rule implements the decision of the ERC to add eighty-one entities under eighty-six entries to the Entity List. These eighty-one entities are being added on the basis of § 744.11 (License requirements that apply to entities acting contrary to the national security or foreign policy interests of the United States) of the EAR. The eighty-six entries being added to the Entity List consist of seven entries in the Crimea region of Ukraine, two entries in Hong Kong, two entries in India, and seventy-five entries in Russia. There are eighty-six entries for the eighty-one entities because five entities are listed in multiple locations, resulting in five additional entries.

Under § 744.11(b) (Criteria for revising the Entity List) of the EAR, persons for whom there is reasonable cause to believe, based on specific and articulable facts, have been involved, are involved, or pose a significant risk of being or becoming involved in, activities that are contrary to the national security or foreign policy interests of the United States and those acting on behalf of such persons may be added to the Entity List. The entities being added to the Entity List have been determined to be involved in activities that are contrary to the national security

or foreign policy interests of the United States. Specifically, in this rule, BIS adds entities to the Entity List for violating international law and fueling the conflict in eastern Ukraine. These additions ensure the efficacy of existing sanctions on Russia. The particular additions to the Entity List and related authorities are as follows.

#### A. Entity Additions Consistent With Executive Order 13660

One entity is added based on activities that are described in Executive Order 13660 (79 FR 13493), *Blocking Property of Certain Persons Contributing to the Situation in Ukraine*, issued by the President on March 6, 2014. As described in the Order, the President found that the actions and policies of persons who have asserted governmental authority in Crimea without the authorization of the Government of Ukraine undermine democratic processes and institutions in Ukraine; threaten its peace, security, stability, sovereignty, and territorial integrity; and contribute to the misappropriation of its assets; and thereby constitute an unusual and extraordinary threat to the national security and foreign policy of the United States. The President also declared a national emergency to deal with that threat.

Executive Order 13660 blocks all property and interests in property that are in the United States, that come within the United States, or that are or come within the possession or control of any United States person (including any foreign branch) of any person determined by the Secretary of the Treasury, in consultation with the Secretary of State, to be responsible for or complicit in, or to have engaged in, directly or indirectly, misappropriation of state assets of Ukraine or of an economically significant entity in Ukraine, among other activities. Under Section 8 of the Order, all agencies of the United States Government are directed to take all appropriate measures within their authority to carry out the provisions of the Order.

The Department of the Treasury's Office of Foreign Assets Control, pursuant to Executive Order 13660, has designated the following entity: Salvation Committee of Ukraine, as being within the scope of the Order. In conjunction with that designation, BIS adds Salvation Committee of Ukraine to the Entity List under this rule and imposes a license requirement for exports, reexports, or transfers (in-country) of all items subject to the EAR to this blocked entity. This license requirement implements an appropriate