

beyond the first indication of a stall (such as stall warning system activation, stick shaker, etc.) in an FAA approved training program.

2. The evaluation requirements in this Directive are intended to validate FSTD fidelity at angles of attack sufficient to identify the stall, to demonstrate aircraft performance degradation in the stall, and to demonstrate recovery techniques from a fully stalled flight condition.

3. After March 12, 2019, any FSTD being used to obtain credit for full stall training maneuvers in an FAA approved training program must be evaluated and issued additional qualification in accordance with this Directive and the following sections of Appendix A of this Part:

- a. Table A1A, General Requirements, Section 2.m. (High Angle of Attack Modeling)
- b. Table A1A, General Requirements, Section 3.f. (Stick Pusher System) [where applicable]
- c. Table A2A, Objective Testing Requirements, Test 2.a.10 (Stick Pusher Force Calibration) [where applicable]
- d. Table A2A, Objective Testing Requirements, Test 2.c.8.a (Stall Characteristics)
- e. Table A2A, Objective Testing Requirements, Test 3.f.5 (Characteristic Motion Vibrations—Stall Buffet) [See paragraph 4 of this section for applicability on previously qualified FSTDs]
- f. Table A3A, Functions and Subjective Testing Requirements, Test 5.b.1.b. (High Angle of Attack Maneuvers)
- g. Attachment 7, Additional Simulator Qualification Requirements for Stall, Upset Prevention and Recovery, and Engine and Airframe Icing Training Tasks (High Angle of Attack Model Evaluation)

4. For FSTDs initially qualified before May 31, 2016, including FSTDs that are initially qualified under the grace period conditions as defined in §60.15(c):

- a. Objective testing for stall characteristics (Table A2A, test 2.c.8.a.) will only be required for the (wings level) second segment climb and approach or landing flight conditions. In lieu of objective testing for the high altitude cruise and turning flight stall conditions, these maneuvers may be subjectively evaluated by a qualified subject matter expert (SME) pilot and addressed in the required statement of compliance.
- b. Where existing flight test validation data in the FSTD's Master Qualification Test Guide (MQTG) is missing required parameters or is otherwise unsuitable to fully meet the objective testing requirements of this Directive, the FAA may accept alternate sources of validation, including subjective validation by an SME pilot with direct experience in the stall characteristics of the aircraft.

c. Objective testing for characteristic motion vibrations (Stall buffet—Table A2A, test 3.f.5) is not required where the FSTD's stall buffets have been subjectively evaluated by an SME pilot. For previously qualified Level D FSTDs that currently have objective stall buffet tests in their approved MQTG, the results of these existing tests must be provided to the FAA with the updated stall and stall buffet models in place.

d. As described in Attachment 7 of this Appendix, the FAA may accept a statement of compliance from the data provider which confirms the stall characteristics have been subjectively evaluated by an SME pilot on an engineering simulator or development simulator that is acceptable to the FAA. Where this evaluation takes place on an engineering or development simulator, additional objective “proof-of-match” testing for all flight conditions as described in tests 2.c.8.a. and 3.f.5. will be required to verify the implementation of the stall model and stall buffets on the training FSTD.

5. Where qualification is being sought to conduct full stall training tasks in accordance with this Directive, the FSTD Sponsor must conduct the required evaluations and modifications as prescribed in this Directive and report compliance to the NSPM in accordance with §60.23 using the NSP's standardized FSTD Sponsor Notification Form. At a minimum, this form must be accompanied with the following information:

- a. A description of any modifications to the FSTD (in accordance with §60.23) necessary to meet the requirements of this Directive.
- b. Statements of Compliance (High Angle of Attack Modeling/Stick Pusher System)—See Table A1A, Section 2.m., 3.f., and Attachment 7
- c. Statement of Compliance (SME Pilot Evaluation)—See Table A1A, Section 2.m. and Attachment 7
- d. Copies of the required objective test results as described above in sections 3.c., 3.d., and 3.e.

6. The NSPM will review each submission to determine if the requirements of this Directive have been met and respond to the FSTD Sponsor as described in §60.23(c). Additional NSPM conducted FSTD evaluations may be required before the modified FSTD is placed into service. This response, along with any noted restrictions, will serve as interim qualification for full stall training tasks until such time that a permanent change is made to the Statement of Qualification (SOQ) at the FSTD's next scheduled evaluation.