

SECTION II—EVALUATION REQUIREMENTS FOR UPSET PREVENTION AND RECOVERY TRAINING TASKS

1. This section applies to previously qualified FSTDs being used to obtain training, testing, or checking credits for upset prevention and recovery training tasks (UPRT) as defined in Appendix A, Table A1A, Section 2.n. of this part. Additionally, FSTDs being used for unusual attitude training maneuvers that are intended to exceed the parameters of an aircraft upset must also be evaluated and qualified for UPRT under this section. These parameters include pitch attitudes greater than 25 degrees nose up; pitch attitudes greater than 10 degrees nose down, and bank angles greater than 45 degrees.

2. The requirements contained in this section are intended to define minimum standards for evaluating an FSTD for use in upset prevention and recovery training maneuvers that may exceed an aircraft's normal flight envelope. These standards include the evaluation of qualified training maneuvers against the FSTD's validation envelope and providing the instructor with minimum feedback tools for the purpose of determining if a training maneuver is conducted within FSTD validation limits and the aircraft's operating limits.

3. This Directive contains additional subjective testing that exceeds the evaluation requirements of previously qualified FSTDs. Where aerodynamic modeling data or validation data is not available or insufficient to meet the requirements of this Directive, the NSPM may limit additional qualification to certain upset prevention and recovery maneuvers where adequate data exists.

4. After March 12, 2019, any FSTD being used to obtain training, testing, or checking credit for upset prevention and recovery training tasks in an FAA approved flight 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.n. (Upset Prevention and Recovery)
- b. Table A3A, Functions and Subjective Testing, Test 5.b.3. (Upset Prevention and Recovery Maneuvers)
- c. Attachment 7, Additional Simulator Qualification Requirements for Stall, Upset Prevention and Recovery, and Engine and Airframe Icing Training Tasks (Upset Prevention and Recovery Training Maneuver Evaluation)

5. Where qualification is being sought to conduct upset prevention and recovery 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. Statement of Compliance (FSTD Validation Envelope)—See Table A1A, Section 2.n. and Attachment 7
- c. A confirmation statement that the modified FSTD has been subjectively evaluated by a qualified pilot as described in §60.16(a)(1)(iii).

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 an interim qualification for upset prevention and recovery training tasks until such time that a permanent change is made to the Statement of Qualification (SOQ) at the FSTD's next scheduled evaluation.

SECTION III—EVALUATION REQUIREMENTS FOR ENGINE AND AIRFRAME ICING TRAINING TASKS

1. This section applies to previously qualified Level C and Level D FSTDs being used to obtain training, testing, or checking credits in maneuvers that demonstrate the effects of engine and airframe ice accretion.

2. The requirements in this section are intended to supersede and improve upon existing Level C and Level D FSTD evaluation requirements on the effects of engine and airframe icing. The requirements define a minimum level of fidelity required to adequately simulate the aircraft specific aerodynamic characteristics of an in-flight encounter with engine and airframe ice accretion as necessary to accomplish training objectives.

3. This Directive contains additional subjective testing that exceeds the evaluation requirements of previously qualified FSTDs. Where aerodynamic modeling data is not available or insufficient to meet the requirements of this Directive, the NSPM may limit qualified engine and airframe icing maneuvers where sufficient aerodynamic modeling data exists.

4. After March 12, 2019, any FSTD being used to conduct training tasks that demonstrate the effects of engine and airframe icing 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.j. (Engine and Airframe Icing)
- b. Attachment 7, Additional Simulator Qualification Requirements for Stall, Upset Prevention and Recovery, and Engine and Airframe Icing Training Tasks (Engine and