

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |   |   |   |   |                                                                                                                                                                                         |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | <p>pilot's flight control displacements and forces (including fly-by-wire as appropriate); and</p> <p>(3) Airplane operational limits. This must display the aircraft operating limits during the maneuver as applicable for the configuration of the airplane.</p> <p>Statement of Compliance (SOC): An SOC is required that defines the source data used to construct the FSTD validation envelope. The SOC must also verify that each upset prevention and recovery feature programmed at the instructor station and the associated training maneuver has been evaluated by a suitably qualified pilot using methods described in this section. The statement must confirm that the recovery maneuver can be performed such that the FSTD does not exceed the FSTD validation envelope, or when exceeded, that it is within the realm of confidence in the simulation accuracy.</p> |   |   |   |   |   | Consideration should be taken with flight envelope protected airplanes as artificially positioning the airplane to a specified attitude may incorrectly initialize flight control laws. |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |   |   |   |   | See Attachment 7 of this Appendix for further guidance material.                                                                                                                        |
| <b>3. Equipment Operation.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |   |   |   |   |                                                                                                                                                                                         |
| <b>3.a.</b>                    | <p>All relevant instrument indications involved in the simulation of the airplane must automatically respond to control movement or external disturbances to the simulated airplane; e.g., turbulence or windshear. Numerical values must be presented in the appropriate units.</p> <p>For Level C and Level D simulators, instrument indications must also respond to effects resulting from icing.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | X | X | X | X |   |                                                                                                                                                                                         |
| <b>3.b.</b>                    | <p>Communications, navigation, caution, and warning equipment must be installed and operate within the tolerances applicable for the airplane.</p> <p>Instructor control of internal and external navigational aids. Navigation aids must be usable within range or line-of-sight without restriction, as applicable to the geographic area.</p> <p>Complete navigation database for at least 3 airports with corresponding precision and non-precision approach procedures, including navigational</p>                                                                                                                                                                                                                                                                                                                                                                                | X | X | X | X |   | See Attachment 3 of this appendix for further information regarding long-range navigation equipment.                                                                                    |
| <b>3.b.1.</b>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |   |   |   | X |                                                                                                                                                                                         |