In addition to the four basic windshear models required for qualification, at least two additional “complex” windshear models must be available to the instructor which represent the complexity of actual windshear encounters. These models must be available in the takeoff and landing configurations and must consist of independent variable winds in multiple simultaneous components. The Windshear Training Aid provides two such example “complex” windshear models that may be used to satisfy this requirement.

2.f. The simulator must provide for manual and automatic testing of simulator hardware and software programming to determine compliance with simulator objective tests as prescribed in Attachment 2 of this appendix. An SOC is required.

2.g. Relative responses of the motion system, visual system, and flight deck instruments, measured by latency tests or transport delay tests. Motion onset should occur before the start of the visual scene change (the start of the scan of the first video field containing different information) but must occur before the end of the scan of that video field. Instrument response may not occur prior to motion onset. Test results must be within the following limits:

| 2.g.1. | 300 milliseconds of the airplane response. | X | X |
| 2.g.2. | 100 milliseconds of the airplane response (motion and instrument cues) | X | X |
| 2.g.2. | 120 milliseconds of the airplane response (visual system cues) |

2.h. The simulator must accurately reproduce the following runway conditions:

1. Dry;
2. Wet;
3. Icy;
4. Patchy Wet;
5. Patchy Icy; and

Automatic “flagging” of out-of-tolerance situations is encouraged. The intent is to verify that the simulator provides instrument, motion, and visual cues that are, within the stated time delays, like the airplane responses. For airplane response, acceleration in the appropriate, corresponding rotational axis is preferred.