Federal Aviation Administration, DOT

2.d.3	Dynamic Lateral and Directional Stability							
2.d.3.a	Lateral-Directional Oscillations.	±0.5 sec. or ±10% of period, ±10% of time to ½ or double amplitude or ±0.02 of damping ratio, ±20% or ±1 sec of time difference between peaks of bank and sideslip. For non-periodic responses, the time history must be matched within ±10 knots Airspeed; ±5° s Roll Rate or ±5° Roll Attitude; ±4°/s Yaw Rate or ±4° Yaw Angle over a 20 sec period roll angle following release of the controls.	Cruise or Climb. Augmentation On and Off.	Record results for at least two airspeeds. The test must be initiated with a cyclic or a pedal doublet input. Record results for six full cycles (12 overshoots after input completed) or that sufficient to determine time to ½ or double amplitude, whichever is less. The test may be terminated prior to 20 sec if the test pilot determines that the results are becoming uncontrollably divergent.	×	X	×	
2.d.3.b	Spiral Stability.	±2° or ±10% roll angle.	Cruise or Climb. Augmentation On and Off.	Record the results of a re- lease from pedal only or cyclic only turns for 20 sec. Results must be recorded from turns in both direc- tions. Terminate check at zero roll angle or when the test pilot determines that the attitude is becoming uncontrollably divergent.	x	X	x	
2.d.3.c	Adverse/Proverse Yaw.	Correct Trend, ±2° transient sideslip angle.	Cruise or Climb. Augmentation On and Off.	Record the time history of initial entry into cyclic only turns, using only a moderate rate for cyclic input. Results must be recorded for turns in both directions.	×	×	x	
3. Motion Sys	stem							
3.a	Frequency response							
		Based on Simulator Capability.	N/A	Required as part of the MQTG. The test must demonstrate frequency response of the motion system as specified by the applicant for flight simulator qualification.	х	X	х	