

(1) sufficient resolution to allow magnification of the display to make appropriate measurement and comparisons; and

(2) sufficient size and incremental marking to allow similar measurement and comparison. The detail provided by the video should provide sufficient clarity and accuracy to measure the necessary parameter(s) to at

least ½ of the tolerance authorized for the specific test being conducted and allow an integration of the parameter(s) in question to obtain a rate of change.

END INFORMATION

TABLE C2E—ALTERNATIVE DATA SOURCES, PROCEDURES, AND INSTRUMENTATION

[The standards in this table are required if the data gathering methods described in paragraph 9 of Appendix C are not used]

QPS requirements			Information
Table of objective tests	Level By only	Alternative data sources, procedures, and instrumentation	Notes
Test entry number and title			
1.a.1.a. Performance. Engine Start and Accelerations.	X	Data may be acquired using a synchronized video recording of all engine instruments, start buttons, means for fuel introduction and means for moving from "idle" to "flight." A stopwatch is necessary.	A single procedure may not be adequate for all rotorcraft steering systems. Appropriate measurement procedures must be devised and proposed for NSPM concurrence.
1.a.1.b. Performance. Steady State Idle and Operating RPM Conditions.	X	Data may be acquired using a synchronized video recording of all engine instruments, and include the status of the means for moving from "idle" to "flight.".	
1.a.2. Performance. Power Turbine Speed Trim.	X	Data may be acquired using a synchronized video recording of all engine instruments. Speed trim actuator position may be hand recorded.	
1.a.3. Performance. Engine and Rotor Speed Governing.	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls.	
1.b.1. Performance. On Surface Taxi. Minimum Radius Turn.	X	TIR, AFM, or Design data may be used.	
1.b.2. Performance. On Surface Taxi Rate of Turn vs. Nosewheel Steering Angle.	X	Data may be acquired by using a constant tiller position (measured with a protractor), or full pedal application for steady state turn, and synchronized video of heading indicator. If less than full pedal is used, pedal position must be recorded.	
1.b.3. Performance. Taxi ...	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls.	
1.b.4. Performance. Brake	X	Data may be acquired using a stopwatch and a means for measuring distance such as runway distance markers conforming with runway distance marker standards.	
1.c.1. Performance. Running Takeoff.	X	Preliminary certification data may be used. Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls. Collective, cyclic, and pedal position time history must be recorded from the start of collective movement through to normal climb. Indicated torque settings may be hand recorded at the moment of lift-off and in a steady normal climb.	
1.c.2. Performance. One Engine Inoperative (OEI), continued takeoff.	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls. Collective, cyclic, and pedal position time history must be recorded from the start of collective movement through to normal OEI climb. Indicated torque settings may be hand recorded at the moment of lift-off and in a steady normal OEI climb.	
1.f. Performance. Level Flight. Trimmed Flight Control Positions.	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls.	
1.g. Performance. Normal Climb. Trimmed Flight Control Positions.	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls.	
1.h.1. Descent Performance and Trimmed Flight Control Positions.	X	Data may be acquired by using a synchronized video of the calibrated helicopter instruments and the force/position measurements of flight deck controls.	