

TABLE C3D—FUNCTIONS AND SUBJECTIVE TESTS—Continued

QPS requirements				Information	
Entry No.	Motion system (and special aerodynamic model) effects	Simulator level			Notes
		B	C	D	
14.	Translational Lift Effects: Procedure: From a stabilized in-ground-effect (IGE) Hover begin a forward acceleration. When passing through the effective translational lift range, the noticeable effect will be a possible nose pitch-up in some helicopters, an increase in the rate of climb, and a temporary increase in vibration level (in some cases this vibration may be pronounced). This effect is experienced again upon deceleration through the appropriate speed range. During deceleration, the pitch and rate of climb will have the reverse effect, but there will be a similar, temporary increase in vibration level	X	X	X	

TABLE C3E—FUNCTIONS AND SUBJECTIVE TESTS

QPS Requirements				
Entry number	Sound system	Simulator level		
		B	C	D
The following checks are performed during a normal flight profile, motion system ON.				
1.	Precipitation.		X	X
2.	Rain removal equipment.		X	X
3.	Helicopter noises used by the pilot for normal helicopter operation.		X	X
4.	Abnormal operations for which there are associated sound cues, including engine malfunctions, landing gear or tire malfunctions, tail boom.		X	X
5.	Sound of a crash when the flight simulator is landed in excess of limitations		X	X

TABLE C3F—FUNCTIONS AND SUBJECTIVE TESTS

QPS Requirements				
Entry number	Special effects	Simulator level		
		B	C	D
This table specifies the minimum special effects necessary for the specified simulator level.				
1.	Braking Dynamics: Representations of the dynamics of brake failure (flight simulator pitch, side-loading, and directional control characteristics representative of the helicopter), including antiskid and decreased brake efficiency due to high brake temperatures (based on helicopter related data), sufficient to enable pilot identification of the problem and implementation of appropriate procedures.		X	X
2.	Effects of Airframe and Engine Icing: Required only for those helicopters authorized for operations in known icing conditions. Procedure: With the simulator airborne, in a clean configuration, nominal altitude and cruise airspeed, autopilot on and auto-throttles off, engine and airfoil anti-ice/de-ice systems deactivated; activate icing conditions at a rate that allows monitoring of simulator and systems response. Icing recognition will include an increase in gross weight, airspeed decay, change in simulator pitch attitude, change in engine performance indications (other than due to airspeed changes), and change in data from pitot/static system, or rotor out-of-track/balance. Activate heating, anti-ice, or de-ice systems independently. Recognition will include proper effects of these systems, eventually returning the simulated helicopter to normal flight.		X	X