TABLE C1A—MINIMUM SIMULATOR REQUIREMENTS—Continued

Entry No.	QPS requirements	Simulator levels			Information
	General simulator requirements	B	C	D	Notes
1.a.	The simulator must have a flight deck that is a replica of the helicopter being simulated. The simulator must have controls, equipment, observable flight deck indicators, circuit breakers, and bulkheads properly located, functionally accurate and replicating the helicopter. The direction of movement of controls and switches must be identical to that in the helicopter. Pilot seats must afford the capability for the occupant to be able to achieve the design ''eye position'' established for the helicopter being simulated. Equipment for the operation of the flight deck windows must be included, but the actual windows need not be operable. Fire axes, extinguishers, and spare light bulbs must be available in the FFS but may be relocated to a suitable location as near as practical to the original position. Fire axes, landing gear pins, and any similar purpose instruments need only be represented in silhouette.	X	X	X	For simulator purposes, the flight deck consists of all that space forward of a cross section of the fuselage at the most extreme aft setting of the pilots' seats including additional, required flight crewmember duty stations and those required bulkheads aft of the pilot seats. For clarification, bulkheads containing only items such as landing gear pin storage compartments, fire axes and extinguishers, spare light bulbs, and aircraft documents pouches are not considered essential and may be omitted.
1.b.	Those circuit breakers that affect procedures or result in observable flight deck indications must be properly located and functionally accurate.	X	X	X	
2.	**Programming**				
2.a.	A flight dynamics model that accounts for various combinations of air speed and power normally encountered in flight must correspond to actual flight conditions, including the effect of change in helicopter attitude, aerodynamic and propulsive forces and moments, altitude, temperature, mass, center of gravity location, and configuration. An SOC is required	X	X	X	
2.b.	The simulator must have the computer capacity, accuracy, resolution, and dynamic response needed to meet the qualification level sought. An SOC is required	X	X	X	
2.c.	Ground handling (where appropriate) and aerodynamic programming must include the following:.				
2.c.1.	Ground effect ..... Level B does not require hover programming An SOC is required	X	X	X	Applicable areas include flare and touch down from a running landing as well as for in-ground-effect (IGE) hover. A reasonable simulation of ground effect includes modeling of lift, drag, pitching moment, trim, and power while in ground effect.
2.c.2.	Ground reaction ..... Level B does not require hover programming An SOC is required	X	X	X	Reaction of the helicopter upon contact with the landing surface during landing (e.g., strut deflection, tire or skid friction, side forces) may differ with changes in gross weight, airspeed, rate of descent on touchdown, and slide slip.