TABLE C2A—FULL FLIGHT SIMULATOR (FFS) OBJECTIVE TESTS

QPS requirements								Information
Test		Tolerance(s)	Flight condition	Test details	Simulator level			Notes
Entry No.	Title				B	C	D	
1. Performance								
1.a.	Engine Assessment							
1.a.1.	Start Operations							
1.a.1.a	Engine start and acceleration (transient).	Light Off Time—±10% or ±1 sec., Torque—±5%, Rotor Speed—±3%, Fuel Flow—±10%, Gas Generator Speed—±5%, Power Turbine Speed—±5%, Gas Turbine Temp.—±30 °C.	Ground with the Rotor Brake Used and Not Used, if applicable.	Record each engine start from the initiation of the start sequence to steady state idle and from steady state idle to operating RPM.	X	X	X	
1.a.1.b.	Steady State Idle and Operating RPM conditions.	Torque—±3%, Rotor Speed—±1.5%, Fuel Flow—±5%, Gas Generator Speed—±2%, Power Turbine Speed—±2%, Turbine Gas Temp.—±20 °C.	Ground	Record both steady state idle and operating RPM conditions. May be a series of snapshot tests.	X	X	X	
1.a.2.	Power Turbine Speed Trim ...	±10% of total change of power turbine speed, or ±0.5% change of rotor speed.	Ground	Record engine response to trim system actuation in both directions.	X	X	X	
1.a.3.	Engine and Rotor Speed Governing.	Torque—±5%, Rotor Speed—1.5%.	Climb and descent	Record results using a step input to the collective. May be conducted concurrently with climb and descent performance tests.	X	X	X	
1.b.	Surface Operations							
1.b.1.	Minimum Radius Turn	±3 ft. (0.9m) or 20% of helicopter turn radius.	Ground	If brakes are used, brake pedal position and brake system pressure must be matched to the helicopter flight test value.	X	X	X	