ADEPT-FC Flight Plan for Flight 9

Grayson Schaer Bretl Research Group Aerodynamics and Unsteady Flow Group ESAero

Created: 11/10/2020 15:57 CST Updated: 11/10/2020 15:57 CST

Mission Phase	Tasks	Task Details
Preflight	Transport to RC ParkAssemble aircraftConduct preflight checklist	 All task details are included in AP validation procedure, Walkaround procedure, and ADEPT-FC checklist
Test 1	 Taxi checklist, taxi to active Before T/O checklist, T/O Crosswind, downwind Cruise checklist Base, final, overfly, crosswind 	 Altitude: Pilot's discretion (pattern) Flight velocity: ~ 50 m/s Elevator, rudder, throttle to trim
Test 2	 Downwind: steady level pass At threshold, engage AP At base turn, disengage AP Base, final, overfly, crosswind 	 Altitude: Pilot's discretion (pattern) Flight velocity: ~ 50 m/s Elevator, rudder, throttle to trim
Test 3	 Downwind: steady banked pass At threshold, engage AP At base turn, disengage AP Base, final, overfly, crosswind 	 Altitude: Pilot's discretion (pattern) Flight velocity: ~ 50 m/s Banked at approximately 20 degrees Elevator, rudder, throttle to trim
Test 4	 Downwind: steady level pass At threshold, engage AP Pilot roll -> AP settle At base turn, disengage AP Base, final, overfly, crosswind 	 Altitude: Pilot's discretion (pattern) Flight velocity: ~ 50 m/s Banked to approximately 20 degrees Elevator, rudder, throttle to trim Expected a 3 second delay between roll settle and AP engage
Approach, landing, shutdown	 Downwind Approach checklist Base, final, land Taxi to gate, shutdown, lockout checklist 	All task details are included in ADEPT-FC checklist