

RQ-7B Shadow Aircraft System Description

The Shadow UAS is controlled by an automatic takeoff and landing system, it is rail catapult launched and uses a tailhook for rolling arrested recoveries, both within an area of 1000' length by 50' wide. Emergency aborts are executed by use of a parachute. The UA has standard aircraft red and green position lights, a white anti-collision strobe light arrangement, a remotely programmable Mode 3A/C and Mode 4 (IFF) transponder, and GPS navigation. Standard mission beacon codes for UA operations will be coordinated through the appropriate ARTCC. Navigation can be preprogrammed autonomous or through direct control by the UAS pilot/operator. Autonomous navigation is for executing preprogrammed missions via GPS waypoints and certain normal and emergency procedures. Recovery and landing is performed autonomously by the Tactical Automated Landing System (TALS), a process similar to an Instrument Landing System (ILS) approach for manned aircraft.

Wing Span	20 feet
Weight	425 lbs
Range	~ 125 km
Endurance	5 Hours @ 50 km
Primary Payload (s)	EO / IR/Laser Pointer/Laser Designator (up to 60 lb)
Launch / Recovery	100m x 50m Area
Transponder	mode 3 A/C