

UAV DIRECTORY

From ground attack to fisheries protection, the mission capabilities of UAVs are diverse. We run through the products on the roster

COMPILED BY RAMON LOPEZ / WASHINGTON DC



AAI The US Army is to field 41 AAI Shadow TUAVs



AEROSONDE AeroVironment's latest vehicle, the all-weather Mk 3



AEROVIRONMENT/BAI AeroVironment/BAI's Dragon Eye sensor platform

AAI (USA)

RQ-7A Shadow 200

The US Army plans to field at least 41 RQ-7A tactical UAV systems, each of which include four air vehicles, two GCSs, two ground data terminals, a portable GCS, a launcher, a TALS, and arresting gear. In December 2002, the army awarded AAI an \$86 million contract for nine systems, six attrition air vehicles and associated equipment.

The US Army has initiated development of a SIGINT capability for Shadow 200. Northrop Grumman is developing a TUAV radar for the brigade-level UAV derived from the ZPQ-1 TESAR used on the USAF's Predator UAV.

The Shadow 400 is a slightly larger version of Shadow designed for naval applications. The 265kg GTOW Shadow 600 has an endurance of 12-14h carrying a 41kg payload. It is powered by the 40kW UAV Engines AR801 engine.

Dimensions length 3.4m, wingspan 3.9m

Performance endurance 5-6h, ceiling 4,573m

Weight GTOW 148.6kg, max payload 25.3kg

Powerplant UAV Engines AR741 rotary engine

Payload EO/IR payload

Guidance & control GPS

Launch & recovery hydraulic launcher, wheeled

Company information: www.aaicorp.com

AEROSONDE (AUSTRALIA)

Aerosonde Mk3

The Mk3 is the latest generation of the Aerosonde, which was conceived as a small, expendable aircraft capable of all-weather operation over the remotest of oceanic regions. In 1998, the Mk1 Aerosonde replicated the first manned crossing of the North Atlantic. In 2001, Saab Systems took a 10% stake in the Australian company, intending to launch a co-operative programme to pursue tactical-level military surveillance contracts.

Aerosondes have collected data in the deep tropics, in severe thunderstorms, in cyclones, and in the Arctic. After a decade of meteorological and environmental activities, Aerosonde is now moving into reconnaissance, agricultural, mining and biological activities. The aircraft is launched from a rack attach-

ed to the roof of a car and lands on its belly. It is controlled through a laptop computer and briefcase-size ground station. Navigation is by GPS with the aircraft communicating via UHF radio or Iridium satellite.

Dimensions length 2.1m, wingspan 2.9m

Performance endurance 30-32h, ceiling 20,000ft

Weight GTOW 14kg, max payload 5kg

Powerplant 24cc fuel injected engine

Payload meteorological instruments, cameras, IR temp sensor

Guidance & control fully autonomous

Launch & recovery launch from car roof rack, land on belly

Company information www.aerosonde.com

AEROVIRONMENT AND BAI AEROSYSTEMS

(USA)

Dragon Eye

Naval Research Laboratory and the US Marine Corps Warfighting Laboratory are developing an affordable, expendable, airborne sensor platform, dubbed Dragon Eye, for "over-the-hill" small unit reconnaissance and threat detection missions. AeroVironment and BAI Aerosystems are competing for a single production contract for over 1,000 Dragon Eyes and 200 GCSs for the USMC.

The notional Dragon Eye system will include two back-packable, low-cost, expendable man-portable 2.5kg hand- or bungee-launched air vehicles that break down into five pieces and a GCS consisting of a rugged and wearable personal computer with a small communications box. Able to operate in adverse weather, Dragon Eye will feature a GPS-based autopilot for autonomous flight capability, 30-60 min endurance at 35kt airspeed, and a battery-powered electric propulsion system. Payloads will include daylight, low-light, and IR imaging systems and a robust communications link. Recovery is accomplished via an autopilot-commanded deep stall terminal descent.

Dimensions wingspan 114cm

Performance endurance 2h

Weight GTOW 1.8kg, max payload 0.45kg

Powerplant electric propulsion

Payload daylight, low-light and IR sensors

Guidance & control GPS-based autopilot for