Tactical Unmanned Aerial Vehicle (TUAV)

Provides commanders an unmanned method to obtain enhanced tactical reconnaissance, surveillance, target acquisition, and battle damage information.

DESCRIPTION AND SPECIFICATIONS

The RQ-7B Tactical Unmanned Aerial Vehicle (TUAV) has a wingspan of 14 feet and a payload capacity of approximately 60 pounds; gross takeoff weight is more than 300 pounds and endurance is more than five hours on-station at a distance of 50 kilometers. The system is compatible with the All Source Analysis System, Advanced Field Artillery Tactical Data System, Joint Surveillance Target Attack Radar System Common Ground Station, Joint Technical Architecture-Army, and the Defense Information Infrastructure Common Operating Environment. The system Ground Control Station (GCS) is also the only joint-certified GCS in the Department of Defense (DOD). The RQ-7B TUAV system can be transported by three C-130 transports.

The RQ-7B TUAV system configuration, fielded in platoon sets, consists of:

- Four air vehicles with electro-optic/infrared imaging payloads
- Two GCS shelters mounted on High Mobility Multipurpose Wheeled Vehicles (HMMWV) and their associated ground data terminals; one portable GCS and one portable ground data terminal
- One air vehicle transport HMMWV towing a trailer-mounted hydraulic launcher
- One HMMWV with trailer for personnel and equipment transport

The system (platoon) configuration includes a maintenance section multifunctional (MSM), consisting of two HMMWVs, one with mounted shelter and trailer, and one with personnel and equipment, manned by soldiers, transporting spares and providing maintenance support. In addition, a mobile maintenance facility manned by contractor personnel is located at the Divisional Military Intelligence Battalion to provide sustainment maintenance and support to the MSM, including "off system support" and "maintenance by repair."

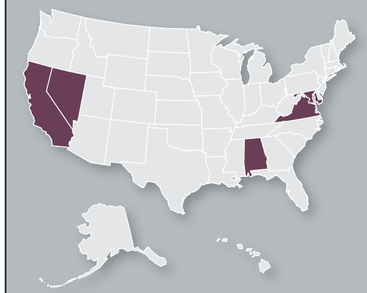
The system also has an early entry configuration of 15 soldiers, one GCS, the air vehicle transport HMMWV, and the launcher trailer, which can be transported in one C-130. All components can be slung under a CH-47 or CH-53 helicopter for transport. Platoon operational tempo personnel requirement is: 12 air vehicle operators, one platoon sergeant, one platoon leader, and one UAV warrant officer. The maintenance section comprises four electronic warfare system repair personnel and three engine mechanics.

PROGRAM STATUS

- **Current** Fielding aggressively. A major acquisition success story, TUAV went from Milestone B to full-rate production decision in just 33 months and is the only DOD UAV to pass initial operational testing and evaluation. Eight systems are now supporting ground forces in Operation Iraqi Freedom (OIF).
- **1QFY04** Shadow has flown more than 3,200 sorties and more than 13,000 hours in support of OIF ground forces.
- **FY05** Nine systems on the fielding schedule, with priority to OIF-bound units.

PROJECTED ACTIVITIES

- **4QFY04** MGS and NBCRV low-rate initial production.



CONTRACTORS

Air Vehicle/Ground Data Terminal:
AAI Corporation (Hunt Valley, MD)
GCS, Portable GCS:
CMI (Huntsville, AL)
Auto-land System:
Sierra Nevada Corp (Sparks, NV)
Ground Data Terminal Pedestal:
Tecom (Chatsworth, CA)
Training and Tech Manuals:
DPA (Arlington, VA)

INVESTMENT COMPONENT
Modernization

ACQUISITION PHASE
- Production and Deployment