

RQ-7B Shadow Tactical Unmanned Aircraft System (TUAS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides reconnaissance, surveillance, target acquisition, and force protection for the Brigade Combat Team (BCT) in near-real-time during day/night and limited adverse weather conditions.

DESCRIPTION

The RQ-7B Shadow Tactical Unmanned Aircraft System (TUAS) has a wingspan of 20 feet and a payload capacity of approximately 60 pounds. Gross takeoff weight exceeds 440 pounds and endurance is more than eight 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, the Defense Information Infrastructure Common Operating Environment,

and the One System Ground Control Station (OSGCS). The RQ-7B Shadow can be transported by six U.S. Air Force C-130 aircraft. It is currently operational in both the U.S. Army and U.S. Marine Corps.

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

- Four air vehicles with day/night electro-optical (EO)/infrared (IR) with laser designator and IR illuminator payloads
- Two One System Ground Control Station on High Mobility Multipurpose Wheeled Vehicles (HMMWV)
- Four One System Remote Video Transceivers
- One hydraulic launcher
- Two ground data terminals
- Associated trucks, trailers, and support equipment

Shadow platoons are organic to the BTC. The Soldier platoon consists of a platoon leader, platoon sergeant, unmanned aerial vehicle (UAV) warrant officer, 12 Air Vehicle Operators/Mission Payload Operators, four electronic warfare repair

personnel, and three engine mechanics supporting launch and recovery. The Maintenance Section Multifunctional is manned by Soldiers who also transport spares and provide maintenance support. The Mobile Maintenance Facility is manned by contractor personnel located with the Shadow platoon to provide logistics support to include “off system support” and “maintenance by repair.”

The RQ-7B Shadow also has an early entry configuration of 15 Soldiers, one Ground Control Station (GCS), the air vehicle transport HMMWV, and the launcher trailer, which can be transported in three C-130s. All components can be slung under a CH-47 or CH-53 helicopter for transport.

SYSTEM INTERDEPENDENCIES

None

PROGRAM STATUS

- **Current:** In production and deployment; flown more than 480,000 hours in support of combat operations in Operation Iraqi Freedom and Operation Enduring Freedom since achieving initial operating capability. Total system flight hours is more than 650,000 hours

PROJECTED ACTIVITIES

- **FY11-FY12:** Field remaining production systems; procure and field laser designator, Tactical Common Data Link, and Universal Ground Control Station retrofits; develop and field reliability and product improvements

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

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FOREIGN MILITARY SALES

Australia

CONTRACTORS

Shadow System:

AAI Corp. (Textron Systems) (Hunt Valley, MD)

TCDL:

L-3 Communications (Salt Lake City, UT)

Shelter Integration:

CMI (Huntsville, AL)

GDT:

Tecom (Chatsworth, CA)

Shelters:

General Dynamics (Marion, VA)

ACE II/II+/III Flight:

Rockwell Collins (Warrenton, VA)

Mode IV IFF:

Raytheon (Baltimore, MD)

Amplifiers:

CTT (Santa Clara, CA)

