

AIR VEHICLE HARDWARE DESCRIPTION



Figure 1. Shadow 200 TUAV, major hardware components.

Refer to Figure 1. The Shadow 200 TUAV System AV has ten major hardware components: wing assembly (Figure 1, item 1), engine (Figure 1, item 2), propeller (Figure 1, item 3), empennage assembly (Figure 1, item 4), antenna system (Figure 1, item 5), arresting hook (Figure 1, item 6), landing gear system (Figure 1, item 7), Flight Termination System (FTS) (Figure 1, item 8), EO/IR payload (Figure 1, item 9) and fuselage (Figure 1, item 10).

AIR VEHICLE DIMENSIONS AND WEIGHTS

WEIGHT AND DIMENSIONS (Assembled):

Length.....	11 feet 4 inches
Width.....	14 feet 0 inches
Height	3 feet 2 inches
Empty	252 to 257 pounds
Fuel	73 pounds (44 liters)
Oil	5 pounds (2.5 liters)
Fully fueled (without payload)	330 to 335 pounds

c. Control Station: (description of number of stations, remote control, locations, system specifications etc.)

Near Real Time Control and Monitoring of AV. Two stations for redundancy located on Redstone Army Airfield.

d. Communication: (description of communications equipment, ATC, range control, GCS, Operators/observers etc.)

ATC communication via VHF or UHF radio real time.

Range control communication in advance via telephone.

GCS, Operators/observers etc. communication via intercom system real time.

e. List Certified Components (TSO) if any:

None

5. Performance Characteristics

a. Climb Rate (Feet/Minute): 500

b. Descent Rate (Feet/Minute): 800-1000

c. Turn Rate (Degrees/Second): 8.5 under external pilot control

d. Cruise Speed (KIAS):	Maximum-	110	Minimum-	60
e. Operating Altitudes:	Maximum-	18K	Minimum-	ELOS
f. Approach Speed (KTS):	60 to 70			
g. Gross Takeoff Wt (Lbs):	375			