



Unmanned Aircraft Systems (UAS)



MQ-5B AIRCRAFT

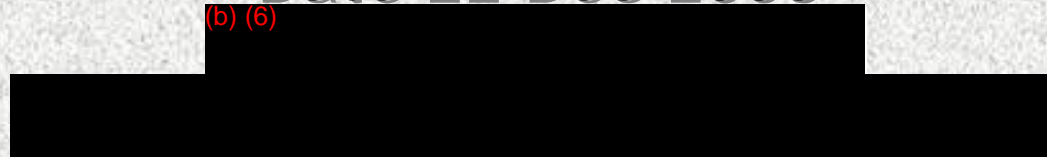


ONE SYSTEM GCS



Date 22 Dec 2006

(b) (6)





Hunter UAVS (Today's Workhorse)



Mission: Division and Corps Level reconnaissance, surveillance, target acquisition, and battle damage assessment



Hunter			
Flights	11,229	O I F	2,542
Hours	46,452.4		17,324.7

As of: 16 Dec 2006

Capabilities:

- Fully Qualified System
- Versatile Payload Platform
- Multiple Mission Configurations
- Extended Range / Endurance UAV
- Stellar Overseas NTC/JRTC Performance
- Target Designation/Attack Capable

Contractor

- Northrop-Grumman Corp

MQ-5B Characteristics / Description:

Wing Span	34.25 Ft
Weight	1950 Lbs
Range	> 200KM
Airspeed	62 Kts cruise (110 Kts Dash)
Altitude	18,000 Ft
Endurance	25 Hours with EO/IR
Primary Payload(s) Max Wt 275lbs	770 EO/IR (80 lbs)
Launch / Recovery	Unimproved runway (1,600 ft)
Propulsion System	Heavy Fuel
Center Wing Configuration	Wet Extended Center Wing

- Operational deployments to Macedonia in support of KFOR in 99, 00, 01, 02
- Operational deployments to IRAQ in support of OIF in 03, 04, 05, 06
- GOCO Operations in support of OIF begin Oct 06
- Systems in place at III Corps (Ft. Hood), XVIII Corps (Deployed, GA), Training Base (Ft Huachuca, AZ); V Corps (Hohenfels, Germany)
- 36 Payload / Sensor Demonstrations
- 4 NTC -- 31 Joint Readiness Training Cntr Exercises (JRTC)
- Lowest mishap rate of any U.S. owned UAV System
- Demonstrated extended center wing with hard points to drop BAT submunition. 4 for 4 against moving armed target array at WSMR -- Oct 02.
- Heavy Fuel Engine (HFE) Incorporated on MQ-5B & RQ-5A
- Voice Over Transmission (VOX) Capability



Hunter System Baseline



Company HQ



Ground Data
Terminal x 2



Launch Recovery
Terminal x 1



Remote Video
Terminal & Antenna x 4

Ground Control
Stations x 3

TOC

System

Air Vehicles x 5



Backup Generator (1)



Mobile Power
Unit (5)

5-Ton POL
Truck x 1



5-Ton Crane
Truck x 2

5-Ton Flatbed
Truck x 2

Payloads x 3
770mm (4)



World Wide Power
Interface Unit (WWPIU) (1)



Personnel/
Equipment
Transport x 1



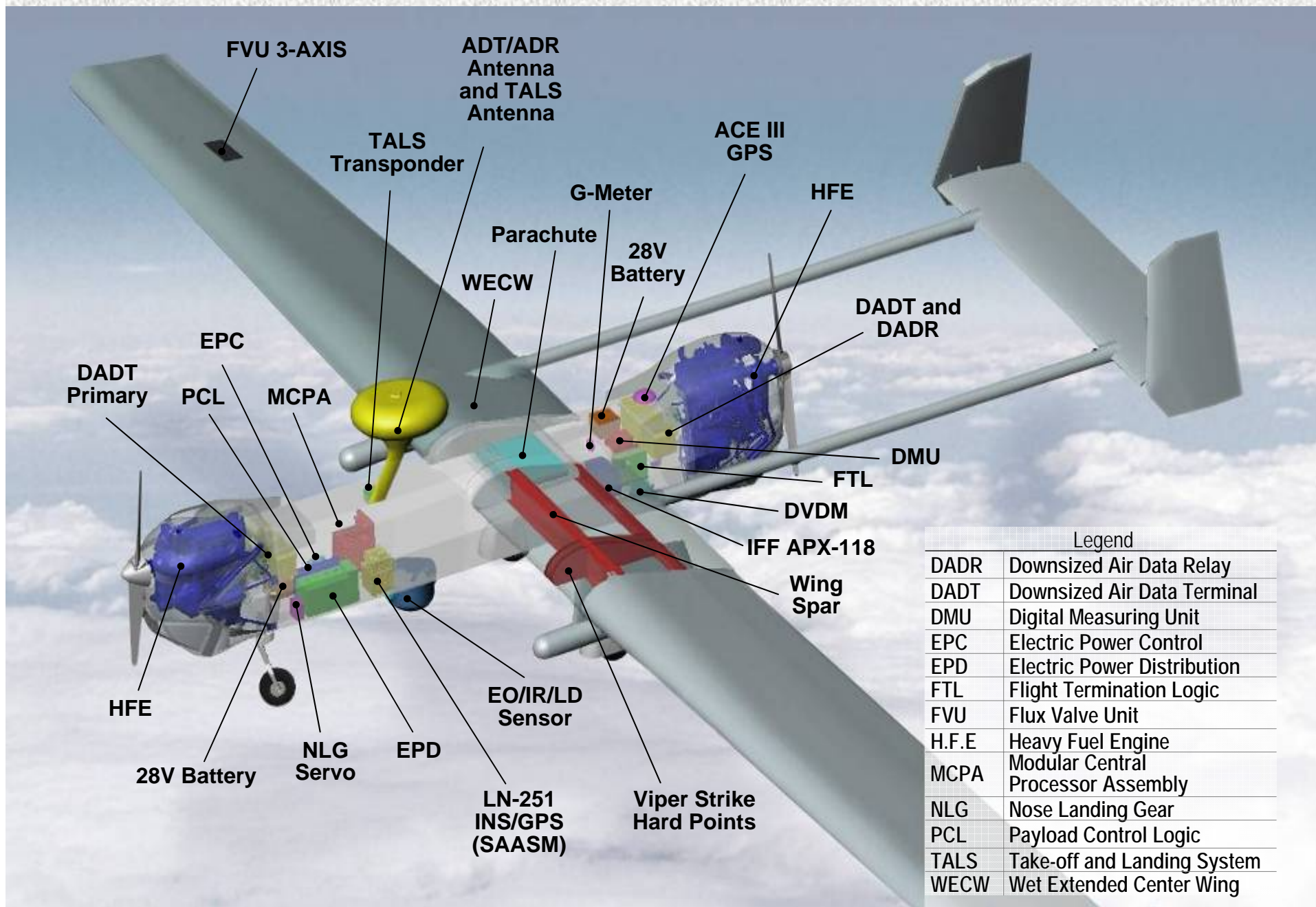
Cargo
Trailer x 2

Mobile maintenance
Facility (MMF)
5 Ton Trailers x 2

Associated Support
Equipment

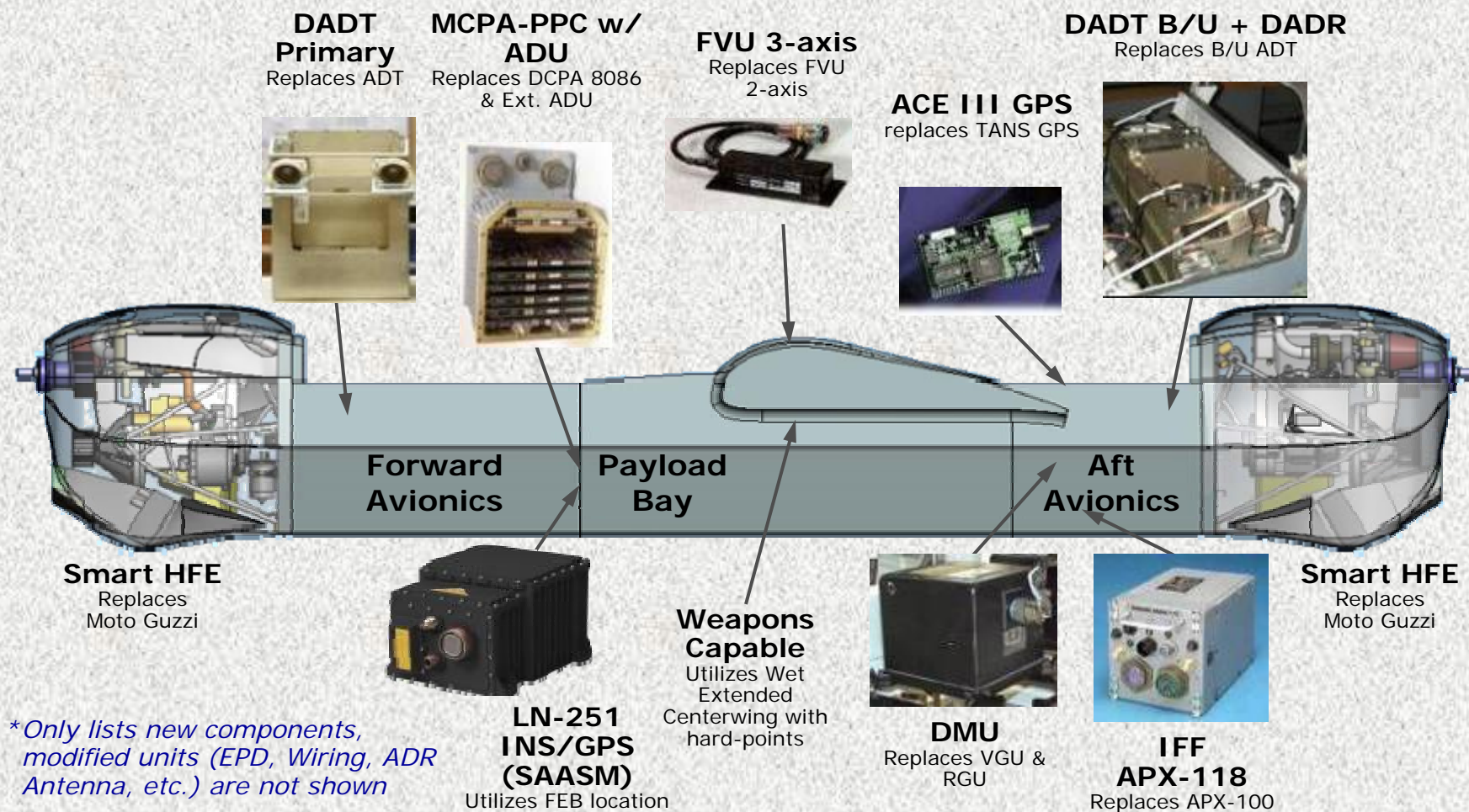


Army MQ-5B Component Layout





"MQ-5B" Avionics



Acronym Legend

DADT	Downsized Air Data Terminal
MCPA-PPC	Modular Computer Processor Assembly - Power Personnel Computer
FVU	Flux Valve Unit
B/U	Back-Up
DADR	Downsized Air Data Relay
INS / GPS	Inertial Navigation System - Global Positioning System0

SAASM	Selective Availability Anti-Spoofing Module
DMU	Digital Measurement Unit
ACE	Airborne Command Electronics
TANS	Tactical Airborne Navigation Systems
LN	Litton Navigation
HFE	Heavy Fuel Engine



One System (Hunter)



Benefits to Warfighter

- Capable of flying Hunter or Shadow AVs
- C4I Connectivity
- Common and embedded Training
 - Standard equipment and similar interfaces
 - Reduce Training time
 - UAV troops can transition between systems by taking vehicle-specific module Classroom, hands-on, simulator, flight
- Common Logistics
 - Common spares and procedures
 - Reduce logistical requirements

Characteristics

- M1113 HMMWV
- Modified S-778 Shelter
- VME Based Hardware
- Extensive use of COTS components
- Solaris 8 Operating System
- DIICOE Compliant
- GOTS C4I Software and Security Software
- DITSCAP Certified
- Weight 10,800lbs

Program Plan

- Ground Testing – Jun 05 - ongoing
- Flight Testing – Aug 05 – Dec 05
- Phased Fielding
 - A/224th (XVIII Corps) Ft. Stewart, GA
OSCGS 17 Oct 05 & MQ-5B 9 Jan 06
 - A/15th (III Corps) Ft. Hood, TX
OSCGS & MQ-5B Apr 06
 - A/1st MI (V Corps) Hohenfels, GE
OSCGS & MQ-5B Sep 06