

Bat UAS: A multi-mission, persistent and affordable family of unmanned air vehicles that can be configured for tactical missions such as communications relay, signals intelligence, maritime surveillance, counter IED, PsyOps and small weapons delivery.

The **HIRTH 2-stroke 15.8 hp EFI** engine, made with carbon pistons and port fuel injection combined with a 5-bladed **low acoustic propeller** provide significant improvements in reliability and quality. Heavy Fuel Engine (HFE) available.

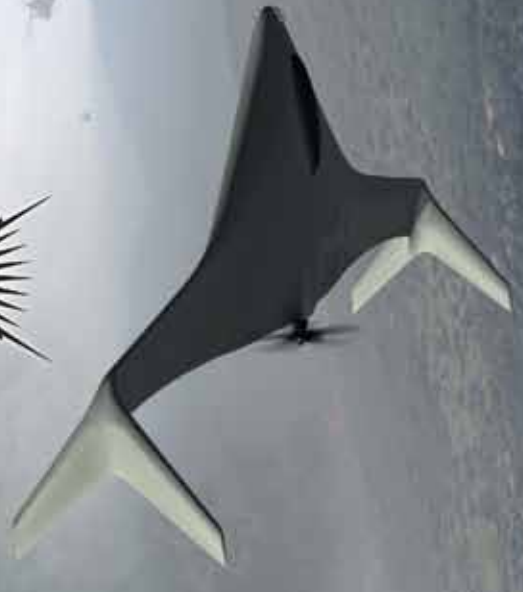
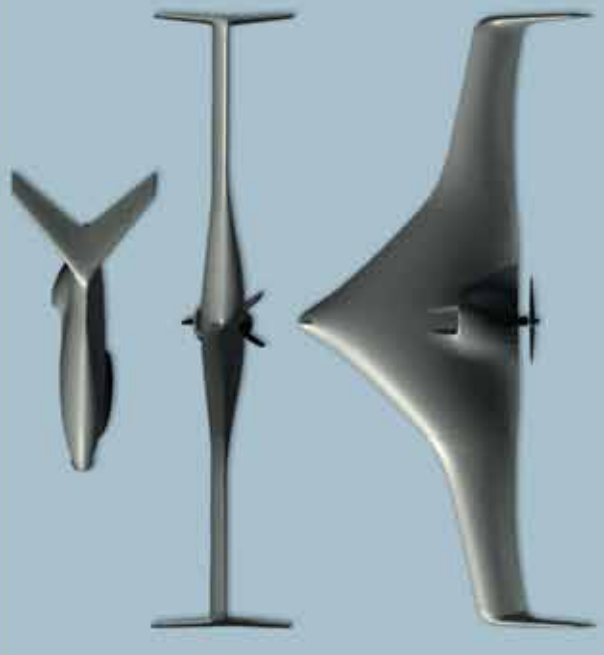
Modular payloads, LRUs and interchangeable outboard wing sections allow the UAS Mission Commander to mix and match payloads and wings to meet ever changing mission requirements.

Blended body design provides high payload volume. Advanced construction techniques and proven Off-The-Shelf (OTS) avionic components allow for a reliable system operation in most extreme environments.

Runway independent and fully autonomous, the Bat UAS launches from a pneumatic/hydraulic rail launcher (the same one used by Shadow), and recovery options include the primary net or optional landing gear.

Scalable Ground Control Systems from ruggedized laptops to a 5-ton One System GCS (OSGCS).

Multiple air vehicles can be operated simultaneously from a single IP-based, STANAG-compliant GCS that feeds multiple imagery workstations or the PDA/laptop-equipped warfighter. Sensor data from any Bat air vehicle can be routed to remote video displays, including HART terminals.



Bat-12 Specifications

Payload and Comms	Up to 75 lbs (34 kg)
Wingspan	12 ft (3.6 m)
Length	6.3 ft (1.9 m)
Max Gross Takeoff Weight	220 lbs (99.8 kg)
Max Altitude	20,000 ft MSL (6.1 km)
Max Speed (Level Flight)	89 ktas
Loiter Speed	63 ktas
Electrical Power	Up to 750 watts

Performance with a Typical 50 lb Payload

Endurance	Up to 14 hrs
Range	970 nm

Runway Independent Launch and Recovery

**Family of Multi-Mission,
Persistent and Affordable
Tactical Unmanned
Aircraft Systems**



NORTHROP GRUMMAN • AEROSPACE SYSTEMS
Advanced Programs and Technology Division
P.O. Box 509066 • San Diego • California • 92150-9066
Contact: Jack Rees (858) 618-3636 • E-mail: john.rees@ngc.com
Approved for Public Release • Distribution Unlimited
Northrop Grumman Aerospace Systems Case 11-0411 Dated 29 March 2011
VM00-AS-4873_03_11

Unmanned. Unmatched.

NORTHROP GRUMMAN



Family of Tactical Unmanned Aircraft Systems



Scalable GCS Options



Laptop



One System GCS (DSGCS)



HIRTH 15.8 hp EFI Engine

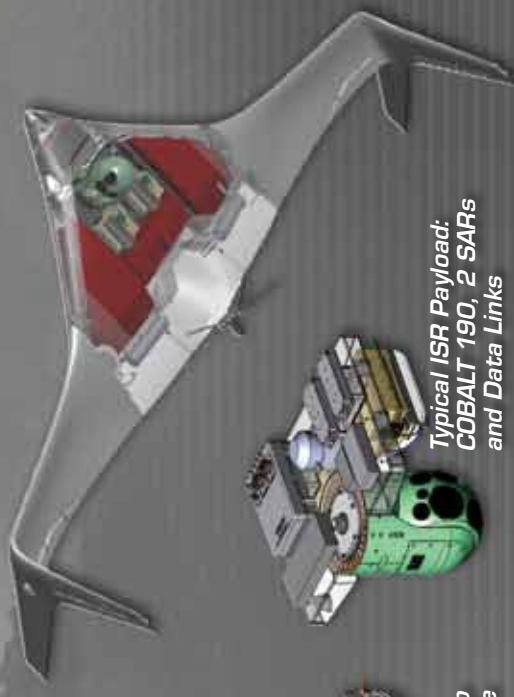
Bat UAS Key Features

- Group 3 STUAS
- Fully Autonomous
- Up to 14 Hour Endurance with 50 lbs of Payload
- Modular Multi-Mission Payloads:
 - ISR: EO, IR, SAR
 - SIGINT
 - Communications Relay
 - PsyOps
 - Weapons (Lethal and Non-Lethal)
- Modular Line Replaceable Units (LRUs)
 - Payloads, Fuel Tanks, Engines
 - Avionics, Outboard Wing Sections
- Embedded Antennas in Winglets
- Transponder and Position Lights
- One Hour Setup/30 Minute Teardown
- STANAG Compliant
- HART Compatible
- Reliable HIRTH S1212 EFI Engine
 - HFE or Gas

Runway Independent
Seamless Integration with Shadow Launcher



Autonomous Net Recovery



Typical ISR Payload:
COBALT 190, 2 SARs
and Data Links