Operational Scenario

The Fire Scout VTUAV system is capable of operating from any air-capable Navy ship and will be primarily based aboard the Navy’s newest surface combatant, the Littoral Combat Ship (LCS). Fire Scout is a critical contributor to the ship’s three primary missions: Anti-Submarine Warfare, Surface Warfare, and Mine Warfare. Operational concepts allow for the Fire Scout to transition through multiple roles while it provides support throughout the Joint Battle Space.

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AEROSPACE SYSTEMS
STRIKE AND SURVEILLANCE SYSTEMS DIVISION

MQ-8B Fire Scout
Air Vehicle Specifications
United States Navy

Air Vehicle
Fuselage Length (with Dual Payload Nose): 23.95 ft (7.2 m)
Fuselage Width: 6.20 ft (1.9 m)
Length (without Blades Retracted, Rearward): 30.03 ft (9.2 m)
Rotor Diameter: 27.50 ft (8.4 m)
Height (Top of Tail Fin): 9.71 ft (2.9 m)
Gross Weight: 3,150 lbs (1428.8 kg)

Engine
Rolls Royce 250-C20W Turboshaft Engine
Speed: 115+ Knots
Ceiling: 20,000 ft (6.1 km)

Endurance
Total Flight Time with Baseline Payload: 8+ Hours
Total Flight Time with EO/IR + Radar: 7+ Hours
Total Flight Time with Maximum Payload: 5+ Hours

Payloads

- Star SAFIRE III EO/IR/LRF
- U.S. Navy BLU-109A
- Mine Detector
- UHF/VHF Comm Relay
- Maritime Radar
- U.S. Navy Broadband ED/VS VLF

Contact Info:
Brooks McKinney (310) 331-6610 • Email: brooks.mckinney@ngc.com

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VM00-AS-4873_04_10
NORTHROP GRUMMAN CORPORATION
STRIKE AND SURVEILLANCE SYSTEMS DIVISION

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AEROSPACE SYSTEMS • NORTHROP GRUMMAN CORPORATION • AEROSPACE SYSTEMS • NORTHROP GRUMMAN CORPORATION
The Fire Scout System (VTUAV) provides a modular payload system designed to provide precision targeting support for U.S. Armed Forces. The system offers minimal support personnel requirements and minimal impact on host ship operations. The MQ-8B Fire Scout provides an unprecedented capability. A modular mission payload allows for continued growth for new sensors. The Fire Scout System provides unprecedented situation awareness and proven targeting support for U.S. Armed Forces. The system offers minimal support personnel requirements and minimal impact on host ship operations.

Payload Features:
- Modular mission payload (MMP)
- Plug and play product
- Software Defined Radio (SDR)
- 50 knot wind range target batterie
- Vehicular communications relay
- 500 pound payload capability
- Dismantlable payload
- Triple Syntetically Aperture Radar (SAR)
- John Tactical Radio Frequency (TJRFL)
- Traffic Collision Avoidance System (TCAS)
- Enhanced Traffic Collision Avoidance System (TCAS)
- Automatic Dependent Surveillance Broadcast (ADS-B) compliant
- Radar Altimeter Antenna (2)
- UHF/VHF (3)
- Radar Altimeter Antenna (1)

Meeting the Armed Forces' System Needs:
- Providing organic Intelligence, Surveillance, Reconnaissance (ISR), and Targeting (T) capabilities
- Visionary battlefield awareness
- Precise, situational, and real-time Electronic Warfare support
- Information Assurance and Cyber Defense
- Full spectrum engagement
- Versatility of a wide variety of override commands
- Autonomy of the air vehicle and payload

Legacy of High Reliability:
Based on a Schweizer Aircraft commercial airframe with over 20 million flight hours, the Fire Scout is a well known, proven, and documented "low risk" approach. This FAA certified, high reliability, high performance VTUAV provides ISoPS (Defense Information Operations Support Plan) compliant conflict avoidance, countermeasures, mine detection, etc. There are also weather avoidance systems designed to keep the vehicle safe and operational.

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The Fire Scout System allows for the full use of multiple Force Multiplier...

The system provides unprecedented situation awareness and proven targeting support for U.S. Armed Forces, but the safety enhanced flight path allows all and any qualified personnel to operate and prepare for battle damage assessment in real-time during combat.

The Fire Scout VTUAV System is based on a highly reliable, civilian Commercial Off The Shelf (COTS) helicopter. The advanced propulsion system utilizes a full spectrum of critical nuclear, biological, and chemical defense systems. The Fire Scout is capable of continuous operations, providing coverage of eight hours, the Fire Scout is capable of...
The Fire Scout System allows for the full use of multiple Force Multiplier...

Supplying Organic Intelligence and Targeting Capability in the Littoral Battle Space

MQ-8B Fire Scout VTUAV

110 nm (200 km) from the launch site. Continuous operations, providing coverage eight hours, the Fire Scout is capable of With a total vehicle endurance greater than

With a total vehicle endurance greater than eight hours, the Fire Scout is capable of providing coverage eight hours, the Fire Scout is capable of

Full autonomy operations. Using a baseline payload that includes electro-

payloads such as radar and electro-optical/infrared

ability to detect, identify, and target tactical threats

The MQ-8B Fire Scout provides an unprecedented

Ready to Deliver

• Autonomy operational from all-weather flight

• Autonomous operational from all-weather flight

• Minimal impact on host ship operations

• Autonomous delivery, expendables employment, threat

• Autonomous delivery, expendables employment, threat

• Plug and play payload architecture

• Plug and play payload architecture

• Modular Mission Payloads (MMP)

• Modular Mission Payloads (MMP)

• Growth payloads

• Growth payloads

• EO/IR laser range finder illuminator

• Baseline MMP capability

• Fully plug and play product

• Fully plug and play product

• Automatic software and STANAG 4586 Compliance

• Automatic software and STANAG 4586 Compliance

• >5 hours on station time (single vehicle) at 110 nm

• >5 hours on station time (single vehicle) at 110 nm

• Autonomous operations from all air-capable ships

• Autonomous operations from all air-capable ships

• Fully interoperable between land and sea-based Tactical

• Fully interoperable between land and sea-based Tactical

• Provides "real-time" Battle Damage Assessment

• Provides "real-time" Battle Damage Assessment

• Provides Over The Horizon (OTH) targeting

• Provides Over The Horizon (OTH) targeting

• Reconnaissance, and Targeting (ISR/T) capabilities

• Reconnaissance, and Targeting (ISR/T) capabilities

• Meeting the Armed Forces System Needs

• Providing organic Intelligence, Surveillance, Reconnaissance, and Targeting (ISR/T) capabilities

• Proving in-theatre battle damage assessment

• Provides Over The Horizon (OTH) targeting

• Legacy of High Reliability

• Legacy of High Reliability
Operational Scenario

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AEROSPACE SYSTEMS
STRIKE AND SURVEILLANCE SYSTEMS DIVISION
MQ-8B FIRE SCOUT
Air Vehicle Specifications
United States Navy

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STRIKE AND SURVEILLANCE SYSTEMS DIVISION

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- EO/IR/LRF
- U.S. Navy Bistatic
- Mine Detector
- UHF/VHF Comm Relay
- Maritime Radar

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**AEROSPACE SYSTEMS**

**STRIKE AND SURVEILLANCE SYSTEMS DIVISION**

**MQ-8B FIRE SCOUT**

Vertical Takeoff and Landing

Tactical Unmanned Aerial Vehicle System

**United States Navy**

**P.O. Box 509066 • San Diego • California • 92150-9066**

www.northropgrumman.com/unmanned