



# RHUMB LINES

*Straight Lines to Navigate By*



July 22, 2011

## Unmanned Air Systems

*“Our progress in the realm of unmanned systems permits us to re-imagine naval warfare where manned and unmanned systems work hand-in-hand with the fleet we have today and the fleet we will have tomorrow.”*

– Chief of Naval Operations Adm. Gary Roughead

Unmanned air systems (UAS) are an integral part of the Navy’s intelligence, surveillance and reconnaissance (ISR) mission. UAS operating in the fleet today have increased the Navy’s capability and capacity across the full spectrum of maritime missions.

### MQ-4C Broad Area Maritime Surveillance Demonstrator (BAMS-D) UAS:

- [BAMS-D UAS](#) is a high-altitude, long-endurance system that provides persistent maritime ISR to fleet and combatant commanders.
- [BAMS-D UAS](#) has been deployed to the U.S. Central Command area of operations for more than two years and has flown 235 operational flights for more than 4,600 hours, providing direct support to ships transiting the Strait of Hormuz and multinational forces participating in maritime interdiction operations.

### MQ-8B Fire Scout Vertical Take-Off Unmanned Aerial Vehicle (VTUAV):

- [Fire Scout](#) is currently conducting a military utility assessment aboard USS Halyburton (FFG 40) to evolve fleet concepts of the VTUAV’s operating system. During its deployment, Fire Scout has successfully supported counter-piracy operations, conducted a proof of concept for special operations forces (SOF) and provided ISR for NATO forces operating in Libya.
- A Fire Scout expeditionary detachment is currently supporting full-motion video ISR requirements in Afghanistan. The detachment flew 307.4 hours with a 91 percent sortie completion rate in June 2011, exceeding its 300 hour requirement. Fire Scout employment resulted in a significant uplift in International Security Assistance Force Regional Command North’s ISR coverage. Overall, the Fire Scout detachments have flown 1,075 hours in seven months in direct support of SOF and ground forces in Afghanistan.
- Fire Scout is designed to operate from [littoral combat ships](#) and other ships modified to support VTUAV. Its initial operational capability is planned for fiscal year 2012.

### X-47B Navy Unmanned Combat Air System Demonstrator (NUCAS-D):

- [NUCAS-D](#) completed its [first flight](#) Feb. 4 at Edwards Air Force Base, Calif. The flight represents an essential step in the Navy’s effort to design, develop and integrate an autonomous UAS on board an aircraft carrier.
- The [first](#) arrested landing of a surrogate aircraft emulating an unmanned vehicle occurred July 2 as an [F/A-18D Hornet](#) landed aboard [USS Dwight D. Eisenhower \(CVN 69\)](#). The surrogate aircraft used systems developed as part of the NUCAS-D program. This landing was also the first full verification of carrier systems designed to support autonomous launch and recovery operations.
- The Navy continues to implement the plan to transition from NUCAS-D to the Unmanned Carrier Launched Surveillance and Strike (UCLASS) system to provide an unmanned carrier-based capability by 2018. UCLASS will provide the joint force with a persistent, carrier-based ISR and strike system.

### Key Messages

- UAS will play an integral role in how the Navy conducts missions from the sea.
- Today, UAS perform a wide range of missions and are used by all branches of the military.
- These systems enhance capability and capacity and reduce operational costs and manpower through emphasis on system interoperability and commonality.

### Facts & Figures

- BAMS-D has a mission radius of 2,000 nautical miles, an on-station time of 15 hours and an endurance of 29 hours.
- Fire Scout has a range of 125 nautical miles with an on-station time of 5.5 hours.
- Halyburton’s Fire Scout flew 182.6 hours during 53 sorties while conducting a proof of concept in support of SOF April 15 to May 28.