Maritime Unmanned Air Systems: Today and Tomorrow

Navy Live

Rear Adm. Mat Winter

Operations in the maritime domain are inherently dynamic and unique. The ability to employ systems over an extended period of time, with a capacity to confront irregular missions, in a multidimensional, vast area is a challenging and costly task.

For the past three decades, we have been operating our unmanned air systems in the maritime environment. In the 1980s, we fielded the small Pioneer UAV in a wide variety of reconnaissance, surveillance, target acquisition and battle damage assessment missions. While our mission set for unmanned air systems hasn't really changed, the capability of our unmanned systems today is far greater than ever before, which gives our maritime commanders an unprecedented operational awareness and mission execution flexibility.

Our unmanned air systems are able to provide that unique degree of flexibility, versatility and persistence needed in the maritime environment. The ability to provide a 24/7 intelligence, surveillance and reconnaissance capability in this domain is a force multiplier for maritime commanders.

From intelligence, surveillance and reconnaissance support off the coast of West Africa, to ferrying cargo to Marines in Afghanistan, Navy unmanned air systems fly thousands of hours every month at affordable costs to protect our deployed forces, track down terrorists and deter piracy.

On smaller-class ships, Sailors are operating the Fire Scout unmanned system with the MQ-8B helicopter, and we will soon deploy an upgraded MQ-8 system with an MQ-8C helicopter that has greater range and endurance than its predecessor. MQ-8 has flown more than 10,000 hours in support of our warfighters and has proven to be a critical asset for counter-mine missions, over land warfare targeting and airborne relay.

The Northrop Grumman Corporation-developed Unmanned Aerial Vehicle MQ-8B Fire Scout hovers over the flight deck of the guided-missile frigate USS McInerney (FFG 8).

Sailors and Marines will deploy with their first expeditionary unmanned air systems, known as the RQ-21A Small Tactical UAS, next year. The system, which is expected to account for nearly half of all unmanned shipboard operations, is ideally suited for humanitarian and combat operations where the transfer of real-time intelligence to the on-scene commander is critical.

Over the next decade, we will introduce our first operational, carrier-based unmanned system, known as UCLASS. This system will provide the carrier strike group with a cost effective, persistent 24/7 intelligence, surveillance and reconnaissance, and targeting capability, which will allow us the opportunity to shape a more efficient carrier air wing.

With the recent completion of X-47B Unmanned Combat Air System carrier demonstration tests aboard USS George H.W. Bush (CVN 77), we have proven the feasibility of operating large scale unmanned air systems capabilities in the harsh carrier environment. We will continue to operate our X-47B UCAS over the coming year to further refine aircraft carrier unmanned air systems concept of operations, reduce UCLASS system technical risk areas and continue to promote the true value of unmanned carrier aircraft capabilities as a realistic, future cornerstone of our Navy's carrier strike groups.

An X-47B Unmanned Combat Air System (UCAS) demonstrator flies near the aircraft carrier USS George H.W. Bush (CVN 77).

Our Broad Area Maritime Surveillance Demonstrator, known as BAMS-D, is in its 55th month of service providing persistent, effective and operational maritime surveillance in the Fifth Fleet today. With more than 10,000 flight hours, BAMS-D has become a cornerstone of operational capability for the combatant commander while continuing to support the development of operating concepts for the MQ-4C Triton program of record, the Navy's largest investment in unmanned systems to date.

The MQ-4C Triton will bring unparalleled awareness of the maritime environment with five continuous orbits around the globe. In operational harmony with the manned P-8A Poseidon, Triton will be a key component of the Navy's family of systems to achieve maritime domain awareness and prosecuting surface targets.

It is an exciting time to be part of unmanned aviation domain. We are at the forefront of developing and fielding new unmanned aviation technologies that will revolutionize naval aviation. The use of Navy and Marine Corps unmanned systems will increase substantially as we integrate them with manned platforms to provide effective, persistent intelligence, surveillance and reconnaissance capabilities along with precision-strike assets today and in the future.