Naval Air Warfare Center Teams Up With Military Sealift Command, U.s. Marines To Test Unmanned Aerial System Concept In An Expeditionary Environment

ATLANTIC OCEAN (June 10, 2023)- A view of a Blue Water Logistic Unmanned Areal System on the flight deck of the fleet replenishment oiler USNS Patuxent (T-AO 201) while the ship was underway in the Atlantic Ocean, June 10. (U.S. Navy photo by John Bruening/released)
Release from Military Sealift Command

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By Bill Mesta, USN Military Sealift Command

12 June 2023

ATLANTIC OCEAN – A team of contracted civilian Unmanned Aerial System (UAS) specialists from Texas-based Skyways teamed up with the Naval Air Warfare Center Aircraft Division's (NAWCAD) Rapid Prototyping and Experimentation Division and UX-24 Unmanned Test Squadron, the U.S. Marine Corps, Military Sealift Command and the crew of MSC's fleet replenishment oiler USNS Patuxent (T-AO 201) to test the Blue Water Logistics UAS's ability to support expeditionary material transportation, while the ship was at sea in the Atlantic Ocean, June 11-12.

The Blue Water Logistics UAS, produced by Skyways, features a removable internal cargo bay capable of transporting small

payloads of material from one location to another, autonomously.

The team performed UAS test flights as part of U.S. Fleet Forces Command and U.S. Marine Forces Command's Fleet Battle Problem 23-1.

"The UAS specialist, shore-side Marines and USNS Patuxent successfully completed the first integration of a logistics drone into a Fleet exercise," according to John Bruening, Military Sealift Command Taluga Group Director. "Over the course of two days, the UAS flew simulated re-supply missions in support of U.S. Marine Corps troops ashore in North Carolina; making multiple deliveries of parts during Fleet Battle Problem 23-1."

The team used two drones to performed five UAS test flights off the coast of North Carolina. Three of the flights demonstrated the UAS's ability to deliver simulated critical repair parts autonomously from USNS Patuxent to Marines operating in an expeditionary environment ashore. The UAS also successfully made two autonomous flights transporting simulated cargo from the Marines ashore to the fleet replenishment oiler at-sea.

"Data analysis has shown that 90% of the high priority parts that are delivered from MSC's Combat Logistic Force ships weigh less than 50 pounds," Bruening stated. "Instead of using a helicopter or sailing ships close together to transfer these parts, we hope to use a logistics drone, which not only saves wear and tear on helicopters, it also provides flexibility to the warfighter while in support of Distributed Maritime Operations."

The team also performed additional UAS flights in the vicinity of USNS Patuxent to test some of the Blue Water's new capabilities and technologies.

“The Blue Water UAS flights were very successful and we met all of our objectives,” according to Bruening. “We proved that we can operate the logistic drones from ships as well as from the shore in support of the Navy and Marine Corps.”

U.S. Fleet Forces Command and U.S. Marine Forces Command conducted Fleet Battle Problem-23, June 9-13, on-land and off the coast of Camp Lejeune, North Carolina, and the Virginia Capes to further develop integrated maritime capabilities with the II Marine Expeditionary Force and U.S. 2nd Fleet.

“There was a lot of excitement aboard USNS Patuxent and with the ashore team to see this new capability,” said Bruening. “The harsh maritime environment adds technical challenges, but the Blue Water UAS team is ready to attack those issues and increase worldwide logistics delivery capability.”

Going forward, MSC and the Blue Water UAS team plans to continue adding capabilities to the drone as well as incorporate lessons learned from this underway period, according to Bruening.

“We will have to change the way we think about logistics when we start using unmanned systems,” concluded Bruening. “When the Skyways UAS launched from USNS Patuxent, the radar controller asked for a status check of the drone and to report how many people were in the aircraft as that question is always asked after an aircraft takes off. I answered ‘None, it’s a logistics drone.’ A new era has started!”

In 2021, earlier versions of Blue Water UAS successfully performed ship to ship cargo delivery from the fleet replenishment oiler USNS Joshua Humphreys (T-AO 188) and the guided missile destroyer USS Bainbridge (DDG 96). Also in 2021, a Blue Water UAS demonstrated the ability to deliver simulated supplies to the aircraft carrier USS Gerald

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