Joint Capability VTOL Demonstration Successfully Showcases REALL Technology

An MH-60M helicopter approaches a roll-on/roll-off discharge facility platform during a vertical takeoff and landing demonstration at Joint Expeditionary Base Little Creek, Virginia, on July 13, 2020. The VTOL was part of a multi-service logistics exercise, surveying new methods of amphibious warfare operations. U.S. NAVY

JOINT EXPEDITIONARY BASE LITTLE CREEK, Va. – Naval Facilities (NAVFAC) Engineering and Expeditionary Warfare Center (EXWC), U.S. Army Engineer Research and Development Center, U.S. Central Command, and the U.S. Transportation Command successfully completed a proof-of-concept vertical takeoff and landing (VTOL) demonstration on July 13, 2020, the NAVFAC EXWC said in a July 20 release.

With NAVFAC EXWC at the helm as the demonstration lead, the joint capability demonstration included U.S. Central Command, U.S. Transportation Command and the U.S. Marine Corps Warfighting Lab serving as the operational leads for the daylong demonstration, providing operational and development inputs.

The VTOL demonstration determined whether a VTOL aircraft can land on a forward-deployed barge with fuel stored on deck. The demonstration also supported the Resilient Expeditionary Agile Littoral Logistics, or REALL, objective to provide a low-cost logistics solution for the Department of Defense, as an alternative to placing high-value logistics supply platforms in contested environments.

The most recent demonstration marks the first of numerous planned technology and operational demonstrations aimed to

transition the REALL capability technology to the warfighter.

“This demonstration is another example of what the great people of NAVFAC EXWC provides for our American warfighters,” said Kail Macias, NAVFAC EXWC technical director. “Speed and agility enable our forces to win the fight. The success of REALL is a tribute to the hard work and collaboration across [the Defense Department].”

The VTOL demonstration consisted of one MH-60M Blackhawk helicopter – provided by the U.S. Special Operations Aviation Command, Systems Integration Management Office – that landed on the Improved Navy Lighterage System (INLS). The INLS is outfitted to simulate a refueling evolution; INLS systems were provided by Amphibious Construction Battalion Two.

“The INLS roll-on/roll-off discharge facility is a modular system and is traditionally designed to facilitate movement of rolling stock from ship to shore platforms,” said Lt. Cmdr. Robert Leftwich, Bravo Company commander, Amphibious Construction Battalion 2. “It is a robust and highly capable platform suitable for other uses. Incorporating this legacy system into emergent needs enables more resiliency and responsiveness.”

The successful VTOL demonstration further advances the National Defense Strategy’s modernization priority on forward force maneuver and posture resilience.

“As the lead combatant command sponsor and warfighter representative for the REALL project, USCENTCOM’s goal was to demonstrate a littoral logistics sustainment capability for fuel distribution and logistics nodes in support of emerging operational concepts,” Said Thomas Smith, CENTCOM J8-ST chief science advisor for Advanced Concepts.

Looking onward, REALL will be further vetted, with the end goal of providing fuel, water, food and other supplies to vertical takeoff and landing aircraft and seaborne vessels for

logistics operations required by the Naval Concept of Expeditionary Advanced Base Operations.