NAVAIR Selects Near Earth Autonomy for USMC Aerial Logistics Connector Program

Near Earth will use Leonardo’s AW139 helicopter for the Aerial Logistics Connector program.

PITTSBURG, Pa. – [July 12, 2024] – NAVAIR has selected Near Earth Autonomy (Near Earth) to lead one of the teams demonstrating optimized logistics using rotorcraft for the U.S. Marine Corps’ Aerial Logistics Connector (ALC) program through an Other Transaction Agreement (OTA) under the Naval Aviation Systems Consortium (NASC). In collaboration with industry leaders Leonardo and Honeywell, Near Earth will showcase advanced autonomy on the Leonardo AW139 helicopter to provide logistical support during expeditionary operations in contested environments. The AW139, renowned for its versatility in defense, medical rescue, law enforcement, and energy operations worldwide, combined with Near Earth’s logistics mission autonomy system, will be the centerpiece of this program.

The objective is to field a flexible solution capable of

transporting various types of cargo and serving in casualty evacuation roles, operating in both crewed and uncrewed configurations. This dual capability will significantly expand the range of missions USMC rotorcraft will be able to undertake. Specifically, the 20-month initiative will demonstrate the rapid deployment of cargo up to 3,000 lb. over a 200 NM radius.

For the ALC program, Leonardo will implement a fast loading, securing, and unloading system for Joint Modular Intermodal Containers (JMIC) on the AW139 helicopter. This system will integrate seamlessly with the helicopter, maintaining payload capacity and structural integrity. Honeywell, which already provides the AW139's autopilot, will augment it to enable autonomous take-off and landing capabilities. As the prime contractor, Near Earth will demonstrate a fully integrated logistics system featuring onboard autonomy that guides the aircraft and modifies the flight trajectory to avoid hazards without requiring a remote operator. Additionally, Near Earth will demonstrate mission autonomy, enabling lightly trained personnel to request, dispatch, monitor, and retask supply deliveries in contested environments.

The ALC program marks an operational-scenario implementation of Near Earth's foundational vision – to pioneer autonomous solutions for full-scale helicopter logistics. This initiative underscores Near Earth's commitment to enhancing efficiency, safety, and reliability in aerial logistics.

Sanjiv Singh, CEO of Near Earth, stated, "We started the company in 2012 to demonstrate autonomous resupply operations in austere environments at an unprecedented scale. We proved feasibility in 2017 with an autonomous UH-1, and now the Aerial Logistics Connector program allows us to demonstrate a complete system that meets this operational need in the near future. We look forward to working with our partners at Leonardo, Honeywell and NAVAIR to build upon state-of-the-art to advance the efficiency and safety of military logistics. "

“Leonardo Helicopters is excited to introduce the USMC to the world-class AW139 helicopter for this next-generation FVL mission,” said Scott Volkert, Dir. of USMC Programs for Leonardo Helicopters. “The combination of Near Earth’s autonomy and AW139 platform will provide the Marines relief on their combat rotorcraft fleet and reduce their workforce requirements.”

“The future of aviation will include several layers of autonomy, and Honeywell is proud to work with our partners to provide the cutting-edge technologies that enable safe and secure autonomy solutions across a range of vehicles, including the AW139,” said Matt Milas, president, Defense & Space, Honeywell Aerospace Technologies.

This project builds on Near Earth’s extensive experience with numerous defense logistics products and initiatives. In 2010, the founders demonstrated the first autonomous helicopter flight for the Army Combat Medic program. From 2012 to 2017, Near Earth focused on the USMC Autonomous Aerial Cargo/Utility System (AACUS), to demonstrate an aircraft-agnostic autonomy system suitable for logistics. Currently, Near Earth is actively integrating autonomy into various other aircraft to support USMC logistics needs. Near Earth also leads Project Crimson to enable autonomous delivery of blood and medical supplies for Army Telemedicine and the Army Heavy VTOL UAS program to demonstrate a multipurpose uncrewed aerial system.