

# Marine Corps Sees Cargo UAVs as the Future of Logistics in Distributed Operations



140318-N-P0203-138 QUANTICO, Va. (Mar. 18, 2014) A Kamen K-Max helicopter equipped with the Autonomous Aerial Cargo Utility System (AACUS) lifts off during an Office of Naval Research (ONR) demonstration held at the Marine Corps Base Quantico, Va., as part of the Autonomous Aerial Cargo Utility System (AACUS) program. AACUS consists of a sensor and software package that when integrated into rotary wing aircraft enables autonomous, unmanned flight allowing the Marine Corps to rapidly resupply forces on the front lines as an alternative to dangerous convoys, manned aircraft or air drops in all weather conditions. (U.S. Navy photo by John F. Williams/Released)

WASHINGTON — The Marine Corps plans to continue experimentation with its two K-Max cargo unmanned aerial vehicles (CUAVs) and hopes to procure more to add to experimentation in logistics for distributed operations.

“We see this as the future of distributed operations in how we logistically supply ourselves,” said Lt. Gen. Steven R. Rudder, the Marine Corps’ deputy commandant for aviation, responding to a question about an unfunded requirement for \$18 million for the K-Max unmanned cargo helicopter from Rep. Joe Courtney (D-Connecticut) during an April 4 hearing of the Tactical Air and Ground Forces subcommittee of the House Armed Services Committee.

The Marine Corps owns two CQ-24A K-Max unmanned helicopters and deployed them to Afghanistan in 2011 through 2014 as an experiment in logistics to forward operating bases. Operated by contractors, they transported 4.5 million pounds of cargo, much of which would otherwise have been transported by 900

convoys of trucks through territory subject to ambush and improvised explosive devices.

"We endeavored to make them a program of record and are still working down that road," Rudder said. "But we were not able to secure funding to get that flying in the fleet for test and operational usage for experimentation. We have since been able to secure funding for a cooperative research and development contract that we're working with [the K-Max vendor].

"In the next few weeks [the two CUAVs] are going to be trucked back to Connecticut, and we're going to give them to the vendor to let them work through a couple different things," Rudder added. "One is autonomous logistics delivery. There are certain things you want on call but there are other things that you need going autonomously. The K-Max, with its lift capability and the way we conceive distributed operations in the future, if we get those airplanes, we're going to configure them [the same] as we're configuring a test vehicle in Connecticut with autonomy, which will allow them to have terrain-following radar and, [with] a push of a button, it will take the cargo to a particular point that was programmed in, drop that cargo and do it all day long. We've seen efficiencies with this over time.

"With the money we have funded right now – to do those two aircraft that we own – we will bring those back from Connecticut, hopefully by the end of next summer, to begin experimenting in [Marine Corps Air Station] Yuma [Arizona] and [Marine Corps Air-Ground Combat Center] Twentynine Palms [California], but the emphasis right now is to create a few more air vehicles so we can expand this usage," he said.