

Marine Corps Replacing Fixed-Wing Small UAS with VTOL Types



ARLINGTON, Va. – The Marine Corps is divesting some types of its short-range, short-endurance small unmanned aerial systems (SUAS) in favor of vertical takeoff and landing (VTOL) SUAS.

The Corps has retired its fixed-wing RQ-11B Raven and RQ-12A Wasp IV SUAS in favor of VTOL SUAS that are easier to launch and recover and can provide a hover-and-stare surveillance capability. They are being replaced by VTOL SUAS such as the SkyDio X2D (built by SkyDio), and the R80 SkyRaider (built by FLIR Systems).

“The Marine Corps’ future operating concepts emphasize the need for agile, distributed operations which require small UAS to be organically owned and operated by tactical units for situational awareness, force protection, target engagement, persistent command, control, communications, and electronic warfare,” said Maj. Joshua C. Benson, director of Communication Strategy & Operations for Deputy Commandant, Combat Development and Integration, in response to a query from Seapower. “These systems equip small unit commanders with these capabilities at the lowest tactical echelons, and the transition to Vertical Take-Off and Landing (VTOL) capability enables maneuver units to operate in challenging terrain and austere operational environments, as the systems do not rely on traditional launch and recovery space.”

A Necessary Innovation

Benson said the Corps is procuring the SkyDio X2D as the squad/platoon electro-optical/infrared/full motion video (FMV) sensor. The R80D SkyRaider is being procured to “provide company-level FMV and selectable payload usage for the Ground Combat Element.”

He said the evolution to VTOL SUAS from the successful RQ-11 and RQ-12 is a necessary innovation.

“Rapid technological advancement of uncrewed aerial systems necessitates an iterative approach to research, development, procurement, implementation, and re-evaluation of system capabilities,” he said. “This adaptive approach enables the service to transition to cutting-edge capabilities as industry and academia advance at the speed of innovation. Divestment of legacy systems and incorporation of new technologies is necessary to ensure our warfighters are equipped with the most capable systems and technology, in order to maintain pace with our peer and near peer adversaries.”

The Corps also operates other VTOL SUAS, including the Skyranger (FLIR Systems/Aeryon Labs); Indago 3 (Lockheed Martin); Instant Eye (Physical Sciences Inc.); PD-100 Black Hornet (FLIR Systems); and Scout (MITRE Corp.).