Xtend nears deliveries of Skylord Xtender sUAS under Pentagon contract 2021-05-25 16:54:19.401 GMT

(Janes)

Xtend will start deliveries soon of its Skylord Xtender small unmanned aerial system (sUAS) to the Pentagon as part of a recent contract. In the third quarter of 2021 the company will deliver dozens of Xtender tactical sUAS platform prototype systems to Pentagon tactical units for operational test

Key Points

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In the third quarter of 2021 the company will deliver dozens of Xtender tactical sUAS platform prototype systems to Pentagon tactical units for operational test and evaluation (OT&E). The award, issued in early 2021, is from the Assistant Secretary of Defense for Special Operations/Low Intensity Conflict (SO/LIC), Irregular Warfare Technical Support Directorate (IWTSD). An Xtend spokesman said on 24 May that the company competed for the contract, but he did not provide further details.

Ido Bar-On, vice-president of business development and sales at Xtend, told Janes on 20 April that the Xtender is an indoor intelligence, surveillance, and reconnaissance (ISR) solution built for close-quarters combat and urban warfare. The Xtender provides a unique, human-centric machine interface technology that enables operators to remotely intervene in dangerous situations from a safe distance.

An Xtender operator wears virtual reality (VR) goggles to view the aircraft's video feed. Bar-On said this allows the operator to feel part of the aircraft.

The operator has one hand controller to direct the aircraft, which Bar-On said is similar to the that used by the Nintendo Wii video game system. Xtender was demonstrated at the 2021 US Army Expeditionary Warrior Experiment (AEWE) held from 5 February to 5 March at Fort Benning in Georgia.

The foundation of Xtender is the Skylord operating system (OS) built on UAS racing technology that allows an operator to fly the aircraft after 30 seconds of training. Bar-On said that it typically takes 9–12 months of training for an operator to achieve a high proficiency in unmanned aircraft operations. This also provides redundant capability as a specialist UAV operator is not required.

The company is promoting Xtender as a practically expendable aircraft. Bar-On said the company does not want operators debating whether to use the aircraft in the field because of concerns of losing a high-cost platform. He said the Xtender's system cost is in its smart control unit. "The [UAS] ... should be expendable," Bar-On said. "No operator should think twice before they take out a [UAS] in a mission."

In addition to the Pentagon, Xtender has been sold to Germany, Israel, and Singapore. Bar-On said the company has contracts with US Army Special Forces, US Special Operations Command (SOCOM), and other SOCOM end users he declined to specify.

The Skylord OS is an external reality (XR)-based, next-generation human-machine interface (HMI). It uses computing technologies such as accurate three-dimensional (3D) navigation using multi-sensor fusion, adaptable visual HMI spatial translation, and augmented reality application programme interface (API).

Xtend announced its SO/LIC IWTSD contract award in a 5 May company statement. The Pentagon's Office of the Secretary of Defense (OSD) did not return a request for comment prior to publication.

Xtend has other applications as part of the Skylord family. One is the Griffon, a counter-UAS application. The company has delivered 150 Griffon systems to US Army Special Forces.

Another part of the Skylord family, the Wolverine, is an outdoor multimission UAS. The Wolverine has a robotic arm that can perform complex pick-and-drop missions such as placing a disposal charge on top of an improvised explosive device (IED). The Wolverine, which weighs 1.1 kg, can lift roughly 3.2 kg.

Comment

The Xtender is another sUAS that leverages the latest technology to simplify operation in a tactical environment. Simplicity is critical because these systems are intended to be used by non-UAS specialist soldiers.

However, tactical forces still face the age-old trade-off of utility versus cost. Even the lightest UAS adds to the already-overburdened infantry soldier's basic load.

Further, even semi-autonomous UASs may impose a significant cognitive burden on soldiers in a fluid tactical environment. These issues could be mitigated with training and experience, but conventional military forces are still in the infancy of developing the tactics, techniques and procedures (TTPs) to get the most from this emerging technology.

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