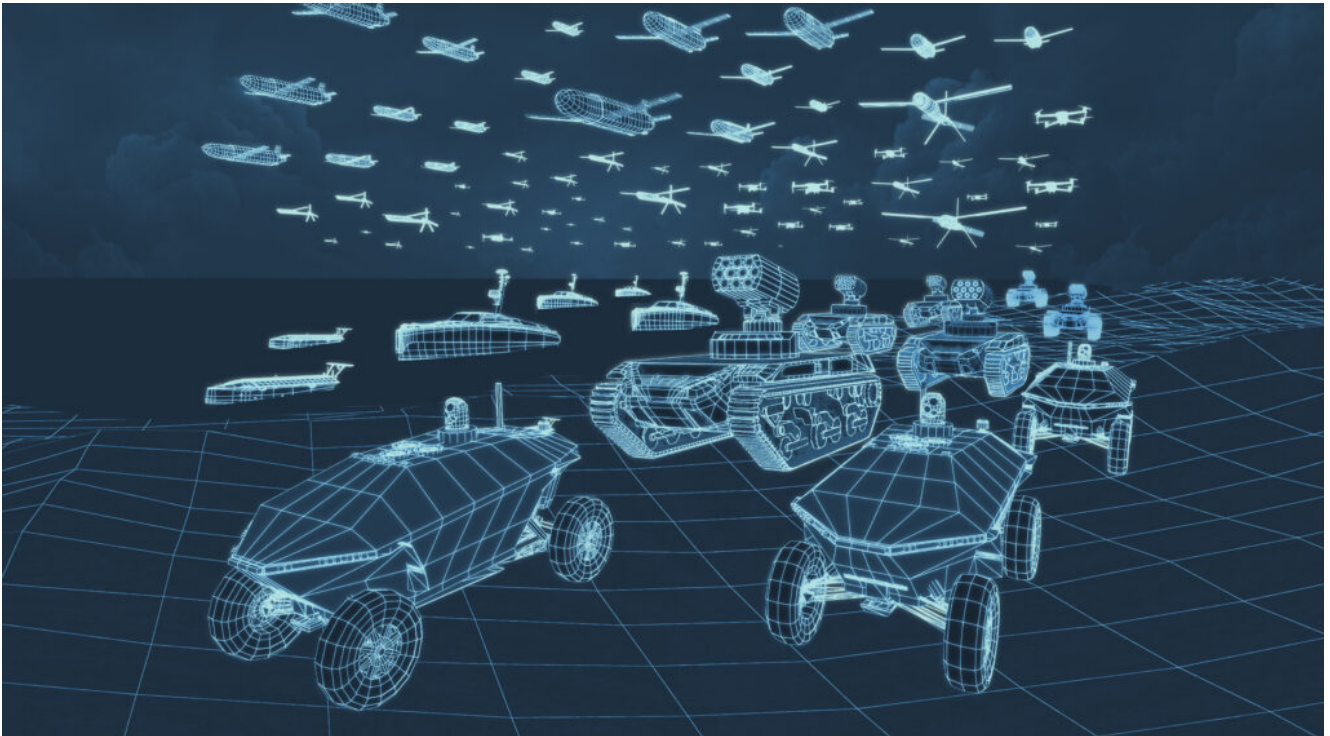


L3Harris Unveils AMORPHOUS C2 Software



An L3Harris graphic illustrating the types of autonomous systems AMORPHOUS could control.

WASHINGTON – L3Harris has taken the wraps off AMORPHOUS, a new software that uses a single user interface to control thousands of autonomous, uncrewed platforms simultaneously, across all domains.

Officials from the Melbourne, Florida-based company briefed reporters on Amorphous on Feb. 6 in Washington, where they also purchased public advertising touting the new system.

AMORPHOUS stands for Autonomous Multi-domain Operations Resiliency Platform for Heterogenous Unmanned Systems and includes a distributed command-and-control interface.

“Autonomy is a force multiplier, which is why we have designed AMORPHOUS as a multi-domain, multi-mission capability that rapidly integrates a variety of uncrewed systems across the battlespace,” said Jon Rambeau, president of L3Harris’

Integrated Mission Systems. “This project also highlights L3Harris’ partnerships with venture-backed and non-traditional companies to mature emerging defense capabilities more quickly and affordably.”

L3Harris is currently developing prototypes using the AMORPHOUS architecture on contracts for the U.S. Army and the Defense Innovation Unit. The company has demonstrated the system’s flexibility and interoperability by controlling multiple, separate assets across multiple vehicle types operating in different domains during government-managed tests.

The software allows one operator to oversee multiple platforms, which can make their own decisions within the network – for instance, if one drone is damaged or lost, the others in a swarm can adjust formations to compensate.

Although the system has just been publicly revealed, Rambeau and Toby Magsig, the vice president and general manager of Enterprise Autonomous Solutions, said AMORPHOUS is under “multiple contracts” to military customers.

And, although it has so far controlled a few systems, it is aimed at being able to control and oversee thousands, they said.

To do that at speed, AMORPHOUS relies on what Magsig called “thin messages,” akin to SMS text message on a phone, to communicate at speed with dispersed systems in multiple domains. The system could be used for counter-UAS operations; intelligence, surveillance, reconnaissance and targeting; swarming kinetic effects; electromagnetic spectrum operations and even autonomous breaching.

“All the services are asking for the same thing,” Magsig said. “This is not service specific.”

Underwater systems have traditionally posed communications

problems, and Magsig was vague on how the company has addressed and possibly overcome them, saying when it comes to the underwater domain, “what happens there needs to stay there.”

Rambeau said AMORPHOUS is open architecture and platform and sensor agnostic, and training time can be very short due to its intuitive interface.