Striveworks Demonstrates Ability to Update AI Continuously at Sea

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. — A Texas-based software company has demonstrated the ability of artificial

intelligence (AI) to maintain integrity while adapting to changing scenarios and environments at sea.

Striveworks, based in Austin, said in a recent release that it “has demonstrated that AI can operate continuously across multiple vessels simultaneously, maintaining accuracy even as conditions change at sea” during a demonstration for the U.S. Navy.

“We’ve gotten the data, the results, and we’re pretty proud of that,” said Jim Rebesco, CEO and co-founder of Striveworks, during an interview with Seapower.

“We’ve demonstrated the ability for AI to play a critical role in targeting custody cycle but in a way that’s very resilient, very trusted, and frankly, robust with environmental or adversary change,” Rebesco told Seapower. “We provide the AI-based tools that enable you to autonomously process that data and ultimately track, identify, maintain custody, and – if you choose to – openly prosecute targets with a much lighter human load.”

Rebesco sees the future fight as “increasingly dispersed, increasingly autonomous, increasingly USV [uncrewed surface vessel]-heavy.”

“If you can see first and shoot first, you’re in a really good spot, and if you can’t, you’re in a really bad spot.”

Striveworks Chariot software “processes all that sensor data coming through,” Rebesco said, noting that Chariot, “is the workhorse that’s underneath this.”

“Chariot integrates easily with the Navy’s existing infrastructure. By delivering processed insights instead of raw data, Striveworks’ software reduces bandwidth demands while giving operators faster, clearer information,” the company said.

Striveworks worked with the Naval Sea Systems Command for its demonstration, with its software being platform-agnostic for USVs, noting that “as the Navy buys those boats, we work with the Navy on what they’ve got,” Rebesco told Seapower.

“The critical challenge facing our military today is keeping AI models working once they’re deployed, especially at scale,” Rebesco said in the release. “Now, we’ve proven that continuity can happen as part of daily operations, instead of the delayed cycles that can represent risk to our men and women in uniform.

“In the Navy demonstration, Striveworks approached the problem differently. Its Chariot platform incorporates new operational data continuously, applies updates regularly, and delivers retrained models at the speed of need, measured in hours,” the release said. “Striveworks demonstrated rapid model transfer between different vessels and sensors across various sea states. Chariot provided rapid high quality target identification, tracking, and monocular passive ranging complete with full data lineage and no model or data IP restrictions. This bolsters the AI-assisted Commander’s confidence, assuring the advantage to stay aligned with changing conditions rather than fall victim to them.”

With another Department of Defense customer, Striveworks “saw an over 95% reduction in operational work, like in human labor involved in maintain and do a kinetic action,” Rebesco said.

“We usually targeted having a fully updated model fully validated, fully tested, fully evaluated – you know exactly what the performance is – within 24 hours. Most of the time we’re well below that. We are constantly taking the operational data that’s coming in. … We train the models from there.”

Striveworks’ software has been used for defense missions in Iraq, Syria, Afghanistan, and in the Russia-Ukraine War.