Commandant Gives an Update on Marines Future

Marine Corps Commandant Gen. Eric Smith discusses the 250th anniversary of the U.S. Marine Corps. (Credit: Laura Hatcher)

By Vicky Uhland, *Seapower* Correspondent

Marines don't win wars; they win battles, said General Eric Smith, commandant of the U.S. Marine Corps, during the Tuesday afternoon session "250 Years Strong – Building the Marine Corps of Tomorrow."

"If you're looking for a chain-mail fist, you're looking at the U.S. Army," he said. "If you're looking to get popped in the nose, you're looking at the Marine Corps."

Smith outlined how the Marines are evolving with the changing character of war. The amphibious ready group remains the crown jewel of the expeditionary force, he said, and is currently

deploying a three-ship Marine expeditionary unit — one from the East Coast, one from the West Coast and one from Japan. “We could use 5.5 MEUs, but we are committed to an unwavering goal of a 3.0 MEU presence,” he said.

Smith said the Marines are also optimizing maintenance schedules to get more out of ships, are targeting investments in service-life extensions and are moving forward with procurement of new, more capable ships.

“Our current investment of 31 amphibious ships is not adequate,” he said, noting that the 2027 defense budget is a significant down payment on a generational investment in ships, but more money is needed.

Another area of emphasis is littoral mobility, mainly in the Indo-Pacific, which Smith called the world’s most challenging environment due to scale and size.

Smith said the Marines are also bolstering their logistics network.

“For decades, we operated with uncontested logistics, but the days of being three steps away from an MRE” or other supplies are over, he said. “As the maritime environment becomes less permissive, the global positioning network comes in.”

Smith said another challenge that “worries me greatly right now” is sufficient magazine depth, which can give commanders freedom of action and reduce operational risk.

Smith also highlighted current areas of achievement, including a clean financial audit for the third year in a row, the only service agency to do so. Barracks 2030 is delivering modern, safe and comfortable living conditions for Marines, and the Marine Corps Total Fitness program is helping make warriors physically, mentally, spiritually and socially resilient, he said.

Smith also answered some audience questions, including:

What can industry do to improve Marine resilience?

“Keep on budget. Don’t sell me what I don’t need. Give me what I’m asking for at a price I can afford,” Smith said.

What in-house innovations are impressing you?

The Drone Dominance task force in Quantico is doing an amazing job with drone technology, Smith said. “We’re still too expensive and haven’t learned all the lessons of Ukraine, but we’re getting faster and faster.”

A Panoply of USVs Graces the Gaylord Pier

Leonardo DRS displayed its counter-UAS at sea system. (Credit: Brett Davis)

By Brett Davis, Editor-in-Chief

In his keynote speech on Monday, Chief of Naval Operations Admiral Daryl Caudle said the future Golden Fleet will include a mix of main battle force ships and attritable, rapidly manufactured uncrewed systems.

To get started on his shopping Caudle would only need to take a short walk to the Gaylord Pier, where 10 exhibitors featured a variety of small to medium boats, many of them autonomous and uncrewed.

One was Leonardo DRS, which showcased its counter-UAS at sea system, which features a Ring counter-UAS system from partner Regulus mounted on a Sea Machines Stormrunner USV.

As presented at Sea-Air-Space, the system uses a GPS spoofer to defeat UAS, including small ones that can be detected up to about a kilometer away, according to Jason Beaty, Leonardo

DRS’ program director for unmanned systems.

Further down the pier, California-based Navier made its show debut with two of its vessels, which can operate autonomously or with a crew. The company says its N30 Quanta-D system’s retractable hydrofoil design, based on the commercial N30 hydrofoil platform, enables superior speed, range and performance for the autonomous vessel.

The company has systems already deployed with the U.S. Navy, said Navier founder and CEO Sampriti Bhattacharyya, although she could not discuss specifics.

The N30 Quanta-D has a 2,000 nautical mile range, could be built quickly by a variety of shipyards and is cheap to operate, she said.

“This boat costs 50 percent less to operate, or much less [than comparable vehicles],” she said. “You think of hundreds of these boats over 10 years, or even five years, or three years, the operational cost savings adds up massively. So, everybody is thinking attritable, but even beyond attritable, these are definitely low cost to build but the operational cost is also super, super low.”

Another company on the pier is Michigan-based Ghostworks, which has a family of carbon fiber systems in use by Special Operations Forces and commercial users, said Britt Ward, the company’s chief naval architect.

The company was formed four years ago and marked its third appearance at Sea-Air-Space, Ward said. Ghostworks’ MUT 3.5-meter composite USV, its smallest, aimed at attritable and intelligence, surveillance and reconnaissance missions, and Magic, an eight-meter foil-assisted catamaran which can carry electronic equipment, nonlethal payloads and autonomous controls.

Further down the pier is BlackSea Technologies, which is

displaying two small new USVs, Chaser and Comet.

BlackSea Technologies unveiled two small new USVs, Chaser (above) and Comet. (Credit: Brett Davis (above), BlackSea Technologies (below))

“Chaser and Comet reflect our focus on giving operators scalable, mission ready platforms that can adapt quickly to evolving threats and mission demands,” BlackSea President Bob Pudney said in a press release. “We are proud to launch them alongside a group of industry partners whose technology helps make these vessels possible.”

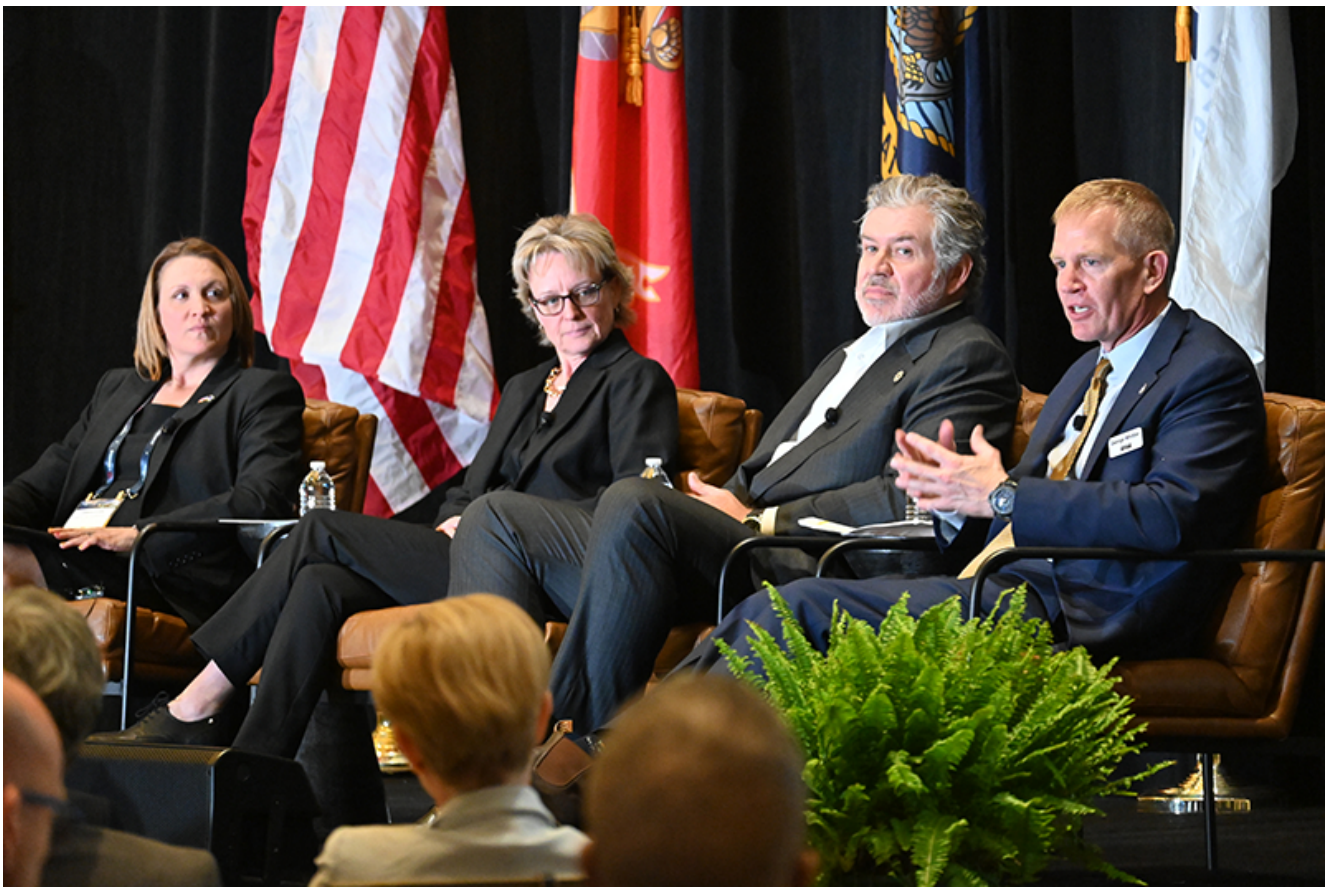
Chaser is a small USV designed to expand payload capacity, range and mission flexibility while maintaining rapid deployability and ease of use (meeting the Navy requirement to fit in a 20’ shipping container).

Comet is BlackSea’s larger, high speed combat ready platform, designed to bridge the gap between small tactical USVs and larger unmanned combat craft. The 13.1 meter vessel can exceed 45 knots, carry a 10,000 pound payload including fuel, and support advanced payloads for missions including counter UAS, mine countermeasures, surface warfare, antisubmarine warfare, electronic warfare, maritime domain awareness and high value unit escort.

Other companies displaying on the pier include Scientific Systems with its Vehicle for Expeditionary Naval Over-the-Horizon Missions (VENOM), announced last year; Martec with its Mantas T38 Devil Ray autonomous USV, which has been used in various military exercises; Textron Systems with its Tsunami USV, which the company says is ready for mission-ready autonomy and is based on a commercial hull; Saronic with its Corsair USV, which debuted last year at Sea-Air-Space; HavocAI, whose software-defined hardware approach powers military and commercial autonomous systems; Maritime Robotics, which builds small “sea drones;” and Zodiac Milpro, one of the rare boats on the pier intended to carry people.

Scientific Systems showcased its Vehicle for Expeditionary Naval Over-the-Horizon Missions (VENOM), announced last year. (Credit: Brett Davis)

White House Commitment to Shipbuilding Sparks Industry Optimism



From left, Amber Stein, Kari Wilkinson, Ben Bordelon and George Whittier speak at the panel on Navy and Coast Guard shipbuilding. Credit: Brett Davis

By Erika Fitzpatrick, Seapower Correspondent

The White House's commitment to multiyear investments in new Navy ships, including the recently announced fiscal 2027 request of $65.8 billion for the Golden Fleet Initiative, is spurring changes in the shipbuilding industrial base, industry leaders said April 21 at Sea-Air-Space 2026.

The Pentagon's $1.5 trillion budget request would provide the Navy with more than $377 billion, a 24% increase over fiscal 2026 levels. Industry players, including George Whittier, CEO of Wisconsin-based Fairbanks Morse Defense (Booth 1337), a U.S. Navy warship service and component provider and supplier, welcomed the budget details, also released Tuesday.

"Critically, the Pentagon said it would request multiyear authorities from Congress for long-running programs," Whittier said in a statement. "Much of the nation's strategic

manufacturing capacity and technical expertise is in our maritime supplier base. This is exactly the kind of certainty the shipbuilding industrial base needs to thrive."

Although shipbuilding manufacturers and suppliers now have confidence that pledged investments in sea power have a better chance to happen, Congress decides appropriations for the coming fiscal year, which begins Oct. 1, 2026.

Nevertheless, the budget visibility is helping manufacturers prepare for the massive workload in the pipeline, said Kari Wilkinson, executive vice president and president of Newport News Shipbuilding at HII (Booth 923).

"We have built submarine and carriers for many years, and we know we can do this," she said. "We expect our customers to be demanding.

"It's fundamentally about people," Wilkinson said, including hiring, training and equipping personnel to fulfill orders. That requires changing the narrative that shipbuilding careers are unstable and distributing the workload to suppliers.

"It is a different landscape today than it has been, but that isn't daunting," she said. "This is a team sport."

The administration's emphasis on schedule – rapid delivery – is pushing shipbuilding to ramp up planning and workforce development, concurred Ben Bordelon, president and CEO at Louisiana-based Bollinger Shipyards.

Bollinger supports shipbuilding for the Navy and U.S. Coast Guard, which also received a cash infusion from Congress that's led to a boom in icebreaker and cutter shipbuilding.

With these investments, the industry can now say to its talent

pipeline that shipbuilding is sustained, profitable work. “We’re selling a career versus a job,” Bordelon said.

Senior Leaders Forecast the Future of Maritime Dominance

From left to right: Retired Admiral James Foggo, Vice Admiral Rob Gaucher, retired Captain William Toti and Admiral Karl Thomas discussed their visions of the future of U.S. maritime dominance during the fifth annual CMS breakfast on Tuesday. (Credit: Laura Hatcher)

By Vicky Uhland, *Seapower* Correspondent

The U.S. Department of Defense is at an inflection point in maritime dominance through acquisition reform, said panelists at Tuesday morning’s fifth annual breakfast hosted by the Navy

League’s Center for Maritime Strategy.

The Department of War is not just a moniker, “it represents a sea change in the way we go about business,” said U.S. Navy retired Captain William Toti, senior advisor to the deputy secretary of war. “We are mobilizing our industrial base in a way that’s never been done probably since World War II. We need everybody in industry to pull along as we go down this lane.”

Toti said when he joined the Department of Defense a year ago, he conducted a review and found war preparation was not taken seriously, critical munitions programs had been terminated and 100% of other critical programs were late and over budget.

“There was complacency all over the department and a loss of military dominance,” he said. “It was a department that lost its way; it was focused on the wrong things” and a reboot was necessary.

Vice Admiral Rob Gaucher, direct reporting portfolio manager (DPRM) submarines and program acquisition executive (PAE) undersea, said DRPM handles submarine building and the PAE structure maintains existing submarines.

For submarine building, the first priority is a “forward-looking supply-chain view to find bottlenecks,” he said. On the PAE side, he’s building out scorecards to measure five specific types of maintenance.

Panelists answered a series of questions about the future of maritime dominance from audience members and the session moderator, retired Navy Admiral James Foggo, dean of the Center for Maritime Strategy. Questions included:

There are going to be three carrier strike groups coming home from the Gulf; how do you get them repaired?

Admiral Karl Thomas, commander of U.S. Fleet Forces Command, said the biggest problem is capacity issues in the shipyard. The main levers include prioritizing maintenance continuum and "ensuring that shipyard workers are turning wrenches," he said.

"Longer deployments mean more maintenance," Thomas said. Maintenance of the USS Gerald R. Ford (CVN 78), which had a major fire on board in March, will exceed 10 months, he said, noting the Navy plans to hire 3,000 more shipyard workers a year to deal with those chores.

What challenges have you learned from Virginia-class submarine procurement maintenance, and how are we postured to overcome those challenges for Columbia and SSN(X)?

Thomas said the gap from "the kill chain from thinking I can manufacture something to when I actually get the ability to get the part" takes more than a year. "We as the Navy have not made it clear to industry" about the manufacturing requirements. This was a huge problem for the Virginia class, he said, and the Navy is leaning into advanced technology to do things quicker.

What is your metric for deciding if industry is supporting the Navy, and what does industry support look like to you?

"Accept the new paradigm [Deputy] Secretary [Steve] Feinberg has put in place. Don't push back. This is how it's going to be," Toti said. "It's OK to think outside the box but not OK to go to Congress. Congress is fully on board; nobody is pushing back on this."

What advice would you give at this point in your careers that would make a difference to a junior Sailor or junior officer?

"The thing that kept me in the Navy to this point is the camaraderie," Thomas said.

Toti said he's been "so blessed to have three lucrative careers, and none of them was planned. Enjoy what you're doing now and don't worry about the future."

"There are going to be plenty of bad deals out there, but there are incredibly good deals and things you get to do," Gaucher said, recommending that young Sailors and officers "take a minute to remember the importance of what you do and what the Navy offers as a career."

Saildrone Unveils Spectre High-speed USV for Naval Operations

A rendering of the Saildrone Spectre with its sail, and in sail-less kinetic strike mode. CREDIT: Saildrone

Saildrone (Booth 1315) today released the design of the Saildrone Spectre, a 52-meter-long, 250-ton uncrewed

surface vessel intended for anti-submarine warfare.

Capable of speeds up to 30 knots, Spectre is the largest, fastest, and most capable Saildrone platform to date, the company said. It leverages the endurance and reliability of the company's Saildrone wing system but is designed to operate without the wing for kinetic strikes.

"Spectre is the result of 25 years of continually pushing the boundaries of what's possible. A unique design evolved through the hard lessons of operational experience in the real world," said Richard Jenkins, Saildrone's founder and CEO. "Spectre is not a craft hurriedly readied to meet a particular RFP, but diligently evolved over multiple years to meet the operational requirements of our customers and fill critical capability gaps in the ASW domain."

Cruising at 25 knots with a 25,000 kilogram payload, Spectre has a range of 3,280 nautical miles in flat water and 2,790 nautical mile range in Sea State 4 head sea. Controllable-pitch propellers enable efficient operations throughout the speed range, allowing for controllable acoustic signatures and near-silent slow-speed operations for tow bodies such as thin-line towed arrays and variable-depth sonar systems.

The concealed payload deck provides room for containerized payloads, ranging from dual 40-foot containers, up to five 20-foot containers, or a mixture of configurations. Spectre's maximum payload capacity is over 70 tons.

"Spectre represents a transformative step forward for naval surface warfare. Its endurance, payload flexibility, and seamless integration with advanced missile and sonar systems will give the U.S. Navy a persistent, low observable USV that can deliver on a spectrum of maritime missions," said Paul Lemmo, vice president and general manager, sensors, effectors,

and mission systems at Lockheed Martin. “Lockheed Martin is proud to partner with Saildrone to bring this capability to life, and we look forward to demonstrating its power at upcoming on-water, live fire demonstrations.”

Spectre performance has been verified and tested at Force Technologies’ tow tank in Copenhagen, Denmark, the company said.

Spectre is constructed from aluminum and will be built in Wisconsin at the Fincantieri system of shipyards, which has the capacity to manufacture five Spectre vessels per year. Construction will begin shortly, with the first vessel undergoing sea trials in early 2027.

The 43-meter (140-foot) composite Saildrone Wing will be manufactured by American Magic Services (AMS) at the American Magic High Performance Center in Pensacola, Florida. Building on its experience serving the marine, aerospace, and defense industries, AMS is capable of producing five Spectre wings per year.

Working with Lockheed Martin, Saildrone has ensured Spectre design compatibility with a wide range of Lockheed Martin payloads, including thin-line towed arrays such as the TB29 and the Mk70 VLS Launcher. Spectre can carry two Mk70s and is capable of deploying the CAPTAS-4 variable-depth sonar system from Thales/AAC.

New Microwave Technology Can

Disable Drone Swarms, Other Electronic Threats

Epirus' Leonidas counter-unmanned aircraft system. (CREDIT: Epirus)

By Vicky Uhland, Seapower Correspondent

In a warfighting world increasingly focused on swarming, uncoordinated unmanned systems across both air and sea, there's a need for defense approaches that are effective against all types of electronic threats.

Epirus (Booth 346) is demonstrating its Leonidas Electronic Protection counter-UAS systems, which use a high-power microwave platform that's built for the Sixth Domain – a battlespace that relies on robotic and autonomous electronic threats that can overwhelm legacy warfighting defenses.

"Leonidas goes beyond drone threats and targets anything with electronics that's vulnerable to a microwave pulse," said

Andrew Wargofchik, Epirus’ director of marketing and communications.

Leonidas’s scalable systems range in size from inches to feet and can defend borders, fixed installations and critical infrastructure. They offer mobile coverage for convoys and expeditionary forces, and integrate directly into vehicles and aerial systems and across ship classes.

Leonidas’ microwave technology uses line-replicable amplifier modules (LRAM), tailored to fit different mission profiles and range requirements. They operate off a small generator or internal batteries and never need a recharge, and have unlimited magazine depth. In addition, Wargofchik said Leonidas systems need only one or two operators and because innovations can be made through software updates, the hardware doesn’t have to leave the battlefield.

Ship Welding Goes to the Dogs

Path Robotics' Rove robotic welding system, seen here visiting the booth of partner company HII. Credit: Brett Davis

By Vicky Uhland, *Seapower* Correspondent

Welding is a challenge in shipbuilding. There's a critical shortage of skilled welders, and massive ship assemblies, inconsistent fit-up stages and large metal pieces that can't be moved make it difficult to automate welding processes.

Enter Rove, a quadruped robotic welding system the size of a standard poodle.

Rove is produced by Path Robotics, which specializes in artificial intelligence for manufacturing. Path Robotics' AI program Obsidian delivers autonomous welding inside cells, and Rove takes that one step further, bringing Obsidian into the field. In essence, Rove comes to the ship rather than the ship coming to Rove.

Legged robots aren’t a new concept in welding, but they’ve traditionally been considered too unstable for precision welding. Obsidian gives Rove the ability to maneuver successfully in high-variability environments like shipbuilding.

Rove, which has a welding torch attached to its head, uses cameras and AI to scan a ship and identify where welds are needed. It can evaluate uneven terrain, climb around large ships and reach remote weld points that humans may have difficulty accessing. Path Robotics says Rove can weld with consistent quality, even when metal parts aren’t perfectly aligned.

Saronic Technologies, which manufactures autonomous maritime vessels, is one of the first companies to use Rove.

“Building the next generation of autonomous vessels means rethinking not just how ships operate, but also how they’re made,” John Morgan, Saronic’s head of manufacturing, said in a press release from Path Robotics.

To see a demonstration of Rove, visit the Path Robotics booth, T76 in the Terrace Exhibits area.

Leidos, HavocAI Join Forces to Advance UAV Interoperability

Across Domains

One of HavocAI's USVs, displayed on the Gaylord Pier. Credit: Erika Fitzpatrick.

By Erika Fitzpatrick, Seapower Correspondent

Leidos (Booth 1125)and HavocAI (D 17) have teamed to test a new fleet of autonomous uncrewed surface vehicles that offer unique capabilities in multidomain environments, company leaders said April 20 at Sea-Air-Space 2026.

"Warfare is changing rapidly," said Cindy Gruensfelder, president of Leidos Defense, a global defense contractor with 9,000 employees. "It's really requiring systems to connect together even more than normal and collaborate across all domains."

She noted that the Navy can best deploy USVs that are integrated within a larger ecosystem that enables real-

time collaboration with greater reach. She said the new partnership pairs Leidos's proven autonomy at scale with HavocAI's "all-domain collaborative autonomy" to deliver the Navy autonomy at speed and scale.

The defense sector has dived headlong into the USV space in the hopes of securing some of the billions of dollars the military is expected to allocate for small, medium, and large USVs in the coming years.

The Navy's 2025 shipbuilding plan calls for spending $40 billion per year to create a 381-ship battle force by 2054, about 85 more ships than it has now, and an additional 130 unmanned surface and undersea vessels. This combined fleet would result in a "more lethal and distributed naval force," the Navy has said.

To expand access to innovation, more traditional defense firms like Leidos are pairing with upstart players such as HavocAI, a Providence, Rhode Island-based aerospace and defense company founded in 2024.

HavocAI specializes in collaborative autonomy, CEO and cofounder Paul Lwins said at the event.

"What that means is making thousands of autonomous systems work together and work with the humans to do very sophisticated things," Lwin said.

So far, Lwin said, HavocAI's 100 or so USVs have shown they can work together. The company also acquired an aerial drone company to integrate those types of systems with autonomous surface vessels.

This fall, the Leidos-HavocAI team will conduct an on-the-water operational evaluation of about 10 UAVs at disparate locations. The test aim to prove the hybrid vessels are interoperable at sea, undersea and in the air, across far-flung locations.

L3Harris Develops Torpedo Tube Launch and Recovery System for AUVs

L3Harris' Torpedo Tube Launch and Recovery system can launch and recover Iver4 900 uncrewed underwater vehicles, like the one shown here in the L3Harris booth, from submarine torpedo tubes. (Credit: Brett Davis)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – The Navy's requirement to develop a method of launching and – more challenging – recovering autonomous underwater vehicles from torpedo tubes of submarines is being met by L3Harris Technologies (Booth 937), which has been awarded an Other Transaction Authority contract from the

Department of Defense's Defense Innovation Unit to deliver the Torpedo Tube Launch and Recovery (TTLR) system.

The TTLR has demonstrated its ability to launch and recover Iver4 900 AUVs through attach submarine torpedo tubes.

"The Torpedo Tube Launch and Recovery system is not a future capability, it's answering combatant commander needs today," Nino DiCosmo, president, Maritime, Space & Mission Systems, L3Harris, said in a company release. "Our system is the first to successfully launch and recover AUVs from a submarine, providing commanders flexibility for persistent undersea operations and maintaining essential stealth."

The Iver4 900 AUV is payload agnostic, said J.R. Gear, vice president and general manager of Integrated Systems and Encryption for L3Harris, in an interview, noting the system would be capable of missions such as seafloor mapping, counter-mine warfare and other intelligence, reconnaissance and surveillance missions.

"We try to build it with some modular interfaces that you could have one type of mission one day from a submarine and then swap out the sensor and swap out the batteries and [gain] maybe a little bit more range and endurance or whatever and tailor the vehicle for today's mission," he said. "Very adaptable."

Gear was not at liberty to describe the details of how the AUV swims back into the torpedo tube, citing proprietary restrictions. But he did say the recovery is "completely autonomous."

The TTLR includes a sleeve that fits inside the torpedo tube, called a SAFECAP, of Shock and Fire Enclosure, from which the IVER4 900 AUV swims out and is later recovered. Importantly, no structural modifications to the submarine are required.

"Whether it [the AUV] swims out with the nose out or backs

out, it’s payload dependent on how it leaves,” Gear said. “It literally swims away, performs its mission, and then when it returns, it’s kind of a push of a button and it will swim back into that SAFECAP of the torpedo enclosure. We’ve tested this on several different types of submarines, and I think we’re the first also that have done this on both the United States Navy and the Royal Navy.”

Gear said the “submarine has to operate in an envelope that’s going to be compatible with the UUV. We can’t discuss that here but it’s very friendly to the mission. You put the SAFECAP in [the torpedo tube], the Iver goes in there with the guides, you lock it up and let it go, and it swims on out and does its thing autonomously. And when it’s finished with its mission, it comes back, and with a command, a single command, it will come back into the sub.”

The SAFECAP sleeve can be removed inside the submarine for the torpedo tube to be used for torpedoes or other payloads.

“The system delivers the first U.S. Navy submarine- and aviation-approved AUV lithium-ion battery technology, enabling longer-duration missions with hot-swap capability for continuous operations,” L3Harris said in a March 26 release. “TTLR’s interoperability across multiple submarine classes and allied platforms advances the Navy’s manned-unmanned teaming vision and demonstrates AUKUS Pillar 2 collaboration.”

Gear was not at liberty to discuss the value of the contract award or the quantity of the order. He did say a TTLR shipset includes two AUVs with a sustainment package that includes some payloads and spare parts. The TTLRs are being built at the company’s Fall River, Massachusetts, facility.

Gear declined to say when deliveries of the TTLR will begin, only, “we’ve been looking forward to this working with the

Navy for a little while and ready to go if and when the Navy was ready. And so, they're ready now. The pump is primed and we're starting to execute on that contract."

As Funding Increases, How Can the Navy and Its Partners Work Together?

A Marine loads an AMRAAM onto an AV-8B Harrier aboard the amphibious assault ship USS Essex (LHD 2). A Department of Defense initiative to expand AMRAAM and other weapons buys helped stabilize the defense industry. Credit: U.S. Navy | Mass Communication Specialist 3rd Class Isaak Martinez

By Vicky Uhland, *Seapower* Correspondent

In a new era of acquisition, it’s important to remember the most pressing operational need for the U.S. Navy is readiness. And the good news is that “today’s fleet is more forward than it’s ever been in my career. We are absolutely ready,” said Rear Admiral Thomas Dickinson during the Monday afternoon panel discussion “Speed to the Fleet.”

“Readiness in nonnegotiable. Without it you don’t have capability or capacity,” said Dickinson, USN program executive officer for integrated warfare systems. “It might not be as sexy as new capability, but readiness is the king.”

In a standing-room-only session, Dickinson and panelists from industry and the research community discussed how they can best work together to deliver readiness faster to the fleet, both now and in the future.

“We’re moving from a just-in-time to a just-in-case mentality,” Dickinson said. “That’s the mentality we need. We cannot be ready enough. Urgency and resilience is really the call.”

Dickinson said industry partners can help the Navy achieve readiness through detailed, real-time insights and data. In the current warfare environment, “it’s a gift to be able to see how we’re performing and make improvements. Innovation and learning go hand-in-hand.”

But as the Navy ramps up its readiness, it’s logical there will be more risk, Dickinson said. That’s where data from both the Navy and its partners comes in. “We have to be able to quantify risk, and it has to be based on data,” he said. “We’re getting better at collecting data quickly.”

Industry Viewpoints

Panelist Barbara Borgonovi, president of naval power for Raytheon, said one of the main things helping her company aid the Navy in its readiness initiatives is the landmark

agreement with the Department of Defense to expand five critical munitions: The AMRAAM missile; the block IB and block IIA variants of the SM-3 interceptor; the SM-6 missile; and the land attack and maritime strike variants of the Tomahawk cruise missile.

Borgonovi said this multiyear commitment ensures that Raytheon will have consistent demand, which will help the company make investments in suppliers, employees and other sources.

“We’re going to make billions of dollars in investments” in the five critical munitions, she said, noting that some Raytheon programs are increasing capacity by five to 10 times.

From the data standpoint, the Navy’s change in focus from activities to outcomes is altering how it interacts with industry, said Vincent Bauer, research program director, data science integration, CNA.

“The Navy is extremely complex” and its processes can be its biggest bottleneck in working with industry. “Data cuts through that complexity” and helps the Navy become a better customer for industry, he said.

Panelists also answered questions from audience members and session moderator Megan Eckstein, founder of Maeday Communications, including:

What challenges does money solve, and what will it not fix?

The Navy is making generational investments for critical munitions and new entrants, Dickinson said. But “money is unfeeling and unthinking. It doesn’t hire talent; it doesn’t drive outcomes over process. We are on the hook to maximize the use of those taxpayer dollars.”

The key, he said, is to create a culture and conditions to best spend new acquisitions money. “It comes down to

leadership at the end of the day."

Borgonovi said threats are going to continue to evolve for weapons systems, so industry needs to stay flexible, including learning from operational use and making investments in data sets.

"We've been given an opportunity that allows us to fill in the lines," she said "We have a lot of flexibility to get to the outcome we want."

What's good for a production line is stability; what's good for the fleet is innovation. How do you balance this?

Borgonovi said Raytheon has seen "incredible engagement" with the Navy on sharing data from Operation Epic Fury. She said her company's focus is on having the ability and capacity to meet multiple needs for customers, including design scalability and composable designs.

Dickinson said the Navy wants to be in an environment where software rather than hardware is driving capability. "It puts us in a much better place to be agile and address threats," he said.

What does the industrial base need to look like to support the modern wartime environment?

Borgonovi believes suppliers and the military need to share data across all companies involved, not just a single contractor.

Bauer noted the defense industry works differently than the consumer industry. "Just-in-time isn't the kind of production system we need in missions," he said, as a wartime environment creates the ability for production surges and opens new pathways to invest in the future.