

Government, Industry Must Meet in 'Common Place of Excellence,' Del Toro Says



Industry and government alike must modernize their processes and up their game to overcome shipbuilding challenges, Secretary of the Navy Carlos Del Toro said April 9 at the lunch session at Sea-Air-Space, including by working with shipbuilding partners overseas.

Del Toro began the speech with a bit of levity, bringing the U.S. Marine Corps mascot Chesty the bulldog onto the stage, before describing the challenges that face the nation, from Houthi rebel attacks in the Red Sea to the state of the nation's shipbuilding facilities and workforce.

"You have to understand, we, the nation, abandoned the shipbuilding industry and making the necessary investments in around the early 1980s," Del Toro said. "Because we thought that somehow the private sector would just take care of

itself. And some ways it did. China moved in with cheap labor and labor practices that weren't fair. In fact, the United States is considering suing China for some of those unfair practices."

Incentives weren't made, and after the Cold War the nation lost many of its shipbuilders, he said, adding, "thank God" the nation still has the shipbuilders it does.

"But the fact is, we need more capacity if we want to grow a Navy fleet. Let me be clear, we need a bigger Navy fleet to meet the challenges of the future. We need to have the industry to be able to grow that capacity. So, this is a whole of government discussion that we've initiated in the Navy across the government and there's a lot of interest that's growing in many different places throughout government. And I think that you'll see this actually continue," he said.

Del Toro cited a recent visit to South Korea, where he saw what could be the future.

"Right now, we build the most capable warships in the world in shipyards that are sometimes decades behind the global technological standard. This is an inefficient approach requiring far too much time and taxpayer dollars. And it's certainly an approach that is only inadequate to pace our 21st century competitors," he said.

Japan and Korea, he noted, build high-quality ships "for a fraction of the cost that we do. When my team and I went to South Korea, we were floored at the level of digitization and real-time monitoring of shipbuilding progress with readily available information down to the individual pieces of stock materials. Their top executives can tell us to the day when ships would actually be delivered," he said.

"It's an ethos of commitment to constant improvement that is the foundation of their reputation, consistently delivering on time and on budget, even during COVID. The daunting challenges

that we face are also an opportunity, a great opportunity to partner with a greater number of shipbuilders here in the U.S. and with our closest allies abroad. We have an opportunity to attract the most advanced shipbuilders in the world to work with our first-rate ship builders of the world ... and invest in commercial shipyards here at home,” Del Toro said. “This will allow us to modernize and expand our shipbuilding industrial capacity, creating good paying new-collar American jobs that come with a healthier and more competitive shipbuilding workforce.”

Previous decades of investment are what have enabled the Navy to fight off the Houthi rebels as effectively as it has, Del Toro said.

“Ladies and gentlemen, sometimes I think the American people think that this is somehow commonplace to do this, as our CNO said the other day. There is absolutely nothing commonplace about this. Our United States Navy has been attacked. We have conducted strikes like we haven’t seen in many ways since World War II.”

He said investments in training have led to the successful engagements, along with the investments in the Aegis Combat System and the SPY-1 radar

“Those investments are the reason why our Sailors and Marines have been able to combat this with proficiency that they have demonstrated to win the fight of the future,” he said.

The services must make similar investments today in robotics and other technologies. Del Toro noted the service has newly introduced the robotics warfare specialist rating. The RW “will be the subject matter expert for computer vision, mission, autonomy, navigation, autonomy, data systems, artificial intelligence and machine learning,” he said, calling it a “significant milestone in our journey towards achieving a truly hybrid fleet.”

And, he said again, the nation needs to investment in shipbuilding.

“The findings of the 45-day comprehensive shipbuilding review have underscored too many of our industrial partners are behind schedule and over budget on our highest priority programs. Let’s be clear, I want American industry to thrive, as a business owner for almost two decades. I understand your perspective. I’m pushing our shipbuilding industry to invest in itself to get better, be technological leaders and to once again deliver platforms on time and on budget. We must deliver for the American people because it’s our line of work. We don’t get to make excuses,” he said.

“Of course, there’s work for us to do on our end and the government as well. I’m determined to address the longstanding challenges in our procurement processes that cause industry heartburn as they tried to do business with us. And there are many that we have to work through. I expect our leaders in the government to foster culture of excellence and accountability across our own acquisition workforce.

“The point is this,” Del Toro said. “Just as our country needs you and industry to be at the top of your game, I’m determined to ensure that we and the Department of the Navy are also on the top of our game. We must meet industry in a common place of excellence.”

Additive Manufacturing, Small Business Collaboration

Highlight First Day of Sea-Air-Space 2024

By NAVAIR

Naval Air Systems Command (NAVAIR) kicked off the 2024 Sea-Air-Space Expo on Monday with panel discussions on manned/unmanned and weapon systems advancements, additive manufacturing success stories and collaborative opportunities for small businesses to join with NAVAIR to aid the warfighter.

The first panel was led by Rear Admiral Stephen Tedford, executive officer of the Program Executive Office for Unmanned Aviation and Strike Weapons (see Tuesday's Show Daily for a story on his presentation).

Theodore Gronda, program manager for the NAVAIR Additive Manufacturing (AM) Team, began his panel discussion by highlighting that the AM team was established in order to create parts in small quantities, when needed, to get a grounded aircraft back in service in a faster time than relying on industry partners for supply chain gaps. Additive Manufacturing is the ability to "print" an object based on information fed into a device, much like a 3D printer.

Gronda said NAVAIR began supporting AM developments by separating them into three tiers. Tier 1 AM printers focus on "Commodity Polymers," and is responsible for creating non-critical, smaller items such as knobs, clips and caps. Tier 2 AM printers focus on "Industrial Polymers," including non-critical and critical parts such as tools, covers, brackets and mounts. Tier 3 AM printers are "Industrial Metal" and create non-critical and critical metal parts including valve bodies, gearboxes, fuel and engine components and manifolds.

One of the newer capabilities Gronda announced was the

addition of a “Solid State” cold spray technology, which uses a metal powder to spray and build up or repair a designated item.

Currently, there are 96 AM devices deployed to 33 sites, including deployed aircraft carriers.

A recent victory for the AM team’s capabilities was when they received word that a ship’s optical landing system had failed. There were aircraft aboard the ship that depended upon that critical landing system and were unable to fly. The ship contacted the AM team and they got to work, learning that the damaged part was simply a coupler, no bigger than four quarters. Within 12 hours, the team was able to redesign the coupler, test it, receive approval, and send the coupler data electronically to the ship where it was then printed. As they were about to install the part, the ship received orders to deploy and the repair was put on hold for a few hours to enable the ship to transit to its destination. Once it arrived, the coupler was installed, and aircraft from that ship were deployed to intercept UASs that were targeting allies.

Another victory for the team, several E-6B Mercury customers found themselves in need of fuel cell interconnecting fittings replacements, as the previous vendor for the part went under during the Covid-19 pandemic. The AM team received a call in October, requesting 12 replacements for the fuel cell interconnectors. Within four months, the team was able to produce the parts and get them to the customers.

Gronda stressed that this was just one example of how the pandemic affected the Naval Supply Systems Command (NAVSUP) ability to maintain sustainment capabilities and how the AM team is rising to meet those areas impacted by supply chain gaps created by the pandemic.

Recognizing the increasing need of AM implementations, Gronda

said the Naval Aviation Schoolhouse for Additive Manufacturing was established in February in Danville, Virginia, and will aim to create a pipeline of AM artisans to meet growing AM needs. The Schoolhouse is a collaborative effort with Naval Sea Systems Command (NAVSEA).

Another success story related to the team was the ability to repair tire rim assemblies on F/A-18 Hornets. Gronda said pilots often land hard on carrier decks, causing the landing gear wheel hub to oblong and the tire to shake. If the tire shakes, it is taken off and discarded.

“That tire is wildly expensive,” Gronda said. “There wasn’t an effective way to repair it. We go through 166 of these tires a year and they cost six figures apiece. Eighty percent of those tires are repairable with cold spray technology. It takes me two hours and costs \$300. It’s a big deal for us. And what that’s done is taught us to think different. Stuff that we previously thought was not repairable is repairable now with cool spray and our additive manufacturing repair machines.”

Small Business Opportunities

The final panel of the day began with an overview of the NAVAIR Office of Small Business Programs (OSBP) and how collaborations with modestly sized operations can be mutually beneficial.

The panel gave step-by-step guidance in how the team guides prospective partners through meeting with OSBP, specifically directing them to the OSBP website, <https://www.navair.navy.mil/osbp/>.

Irma Alexander, deputy director for the OSBP, summed up whole purpose attendees were at Sea-Air-Space this week – market research.

“The government is here to learn about you. You’re here to learn about us, about your competitors, about potential future

collaborations,” Alexander said. “But how do you make those decisions? You make them through market research. That’s our common purpose. So, when you go home and you’re tired, think about the motivation you felt this morning, because that’s the motivation you need to go do your homework so you can come see us. Market research is the foundation from where you build your business decisions, where you decide how you’re going to capture that business, and how you’re going to mark it. The good news is we offer a lot of awesome market research resources.”

AUKUS Program Marks ‘Greatest Industrial Undertaking’ for Australia



Then-CNO Admiral Mike Gilday, Royal Navy First Sea Lord and Chief of Naval Staff Adm. Sir Ben Key, and Chief of the Royal Australian Navy Vice Adm. Mark Hammond, tour the Virginia-class fast-attack submarine USS Missouri following the AUKUS bilateral announcement in San Diego, Calif, March 13, 2023.

CREDIT: U.S. Navy | Commander Courtney Hillson

The AUKUS program, the multination effort to provide Australia with nuclear-powered submarines, will kick-start that country's ability to build nuclear subs, an Australian minister said in a panel discussion at Sea-Air-Space on April 8.

Pat Conroy, Australia's minister for defense industry and minister for international development and the Pacific, said the effort will be a challenge but it was a logical choice to select a partnership of Australian Submarine Corp. and BAE Systems to build the subs, as ASC built Australia's diesel-electric submarines and BAE builds the United Kingdom's Astute and Dreadnought-class submarines.

"For them to form a joint venture for us was the right model,"

Conroy said. He said it will be a “step up” for them to move to nuclear standards, but they’ve had a long partnership with General Dynamics Electric Boat in the United States.

“Electric Boat was instrument in fixing some of the challenges that we encountered earlier in the Collins class,” Conroy said. “So, we’re confident we’ll put the ecosystem in and we’re investing around \$30 billion Australia to increase our industrial place uplift that will really underpin what is the greatest industrial undertaking our country’s ever attempted.”

Moderator Megan Eckstein of Defense News noted the United States and United Kingdom are talking about building up the nuclear industrial base, but for Australia, “you’re starting from scratch.”

Conroy replied, “it’s an incredible effort, and lots of progress has been made from legislative rules to establishing a nuclear regulatory authority to starting to train our workers, our industry in the nuclear mindset. It has been a challenge, but also a great opportunity to include Australian companies from the ground floor.”

Australia is mounting a full national mobilization, he said, including funding 4,000 additional permanent university places in STEM subjects to grow the workforce.

“We think we need 20,000 workers. We’ve got Royal Australian Navy sailors working on U.S. submarine tenders in Guam right now, and a hundred ASC employees will be working for harbor sustainment next year,” he said.

“So, we’re starting that training pipeline. That \$30 billion dollars will be a massive investment. And while it’s a challenge, there’s also opportunities,” he said.

“I’ve had the privilege of going through Barrow-in-Furness in the U.K. [home of BAE Systems Submarines] and the Groton,

Connecticut yard here [home of Electric Boat] and they've got tremendous expertise built up over a century. But they've also got the challenges of that, of being built around towns like in Barrow-in-Furness. You've got terrace houses next to assembly halls because the town and a shipyard being built up together. Having a brownfield site where we can build with the best equipment, with lots of open space, will really allow us to maximize efficiencies and learnings from our oldest partners."

Atlantic Commander: Industry-Government Partnership Essential to Coast Guard Innovation



U.S. Coast Guard response boat crews enforce a safety zone, April 2, 2024, after the collapse of the Francis Scott Key Bridge in Baltimore, Maryland.

By Erika Fitzpatrick, Contributor

Future innovation within the U.S. Coast Guard comes from listening to and partnering with the defense industry, Vice Admiral Kevin E. Lunday, U.S. Coast Guard Commander of the Atlantic Area and Defense Force East, said April 8 at Sea-Air-Space 2024.

“Most of the innovation, most of the great ideas – the kernel, the incubator for those – is within the defense industrial base,” he said. The Navy League’s symposium, which he called the premiere industry-government event, is a “special opportunity to have a conversation and a dialogue.”

In addition to supporting U.S. Combatant Commands, Lunday directs Coast Guard forces and operations involving navigable waterways east of the Rocky Mountains to the East Coast, throughout the Atlantic Ocean, and in parts of the Arctic

Ocean to the Arabian Gulf.

As such, his command is involved in a range of often high-profile events and issues.

For instance, when Baltimore's Francis Scott Key bridge collapsed on March 26 within minutes of being rammed by a massive, malfunctioning container ship, Lunday directed forces there within hours for active search and rescue and follow-on recovery efforts. In cooperation with federal, state, and local partners, the USCG set up and now helps lead the Key Bridge Response Unified Command.

"While that may seem like a very unusual operation in some respects – a bridge collapse after a ship hitting it – that kind of emergency response that the Coast Guard is involved in leading is very common for what we do across the Atlantic area, across the service, every day," he said.

Other Atlantic-area USCG operations include:

- Helping prevent and prepare for maritime mass migration incidents and fighting transnational crime in the eastern Caribbean through participation in the Joint Task Force-East.
- Controlling, reducing, and preventing deaths from irregular maritime migration, particularly in stemming the flow of migrants from the economically and politically stressed countries of Haiti and Cuba, through Homeland Security Task Force-Southeast.
- Looking into the circumstances involved in the June 2023 implosion of the Titan submersible, an ongoing review conducted by the Coast Guard Marine Board of Investigation.

Lunday credited USCG's successful involvement in these and other endeavors to long-term investments in incident command response and in technological systems that shed light on maritime migration patterns and provide other mission-critical information.

Need to Think Differently

Lunday said USCG is intently focused on readiness – how to carefully balance the readiness of the force with the demand for execution.

However, he said, new solutions are needed, and the Coast Guard looks to private industry to provide many of them.

Our leadership challenges us is to “think differently about how we conduct operations,” Lunday said, “because the increased demands for services and readiness challenges are forcing us to think differently.”

For instance, the Coast Guard needs effective technologies with government and mission application. These include artificial intelligence and data tools to better analyze, understand, model, and predict patterns of human behavior.

Because industry is thinking about where we need to be going, Lunday said, we should “open our mind and our ears and listen to what they’re saying about how we move forward.”

CMS Breakfast: Pursuing Ways to Strengthen the Workforce,

Boost Readiness



Government and industry need to work together to solve the problems of shipbuilding schedules, workforce retention and getting deployable technology into the hands of warfighters at scale, speakers said at the Center for Maritime Strategy breakfast on April 9.

“Is it time to call for the Defense Production Act?” asked Admiral James Foggo, the dean of CMS and panel moderator, noting the number of shipyards have declined over the decades from 55 to just six today.

“It’s about setting conditions,” said Nickolas Guertin, the Navy’s relatively new assistant secretary for research, development and acquisition, noting the industry saw the need to ramp up shipbuilding in the 1930s, providing critical capability when World War II began. “Setting conditions is part of what I can do.”

Guertin said defense officials and industry need to stop thinking of themselves as carrier people or submarine people, “but as delivering game-changing capability across the tyranny of distance.”

He said government and industry need to look at the workforce as national strategic assets and create environments where they want to stay in an industry adversely affected by COVID.

“Their happiness at work is a primary task for industry ... we are bleeding people on the waterfront and we need to turn that around,” he said.

Admiral Daryl Caudle, commander of Fleet Forces Command, said it has become obvious to Chief of Naval Operations Admiral Lisa Franchetti that the Navy she has inherited “will not fundamentally change in size. It just will not. We have a responsibility to wring out every ounce of readiness we can.”

The Navy needs to innovate on force generation, defining what combat surge readiness looks like, and coupling revolutionary technology like artificial intelligence and machine learning with actual problems they can help solve, “so we can actually apply [them] where those technologies need to land,” he said.

It would also be helpful to give industry clear demand signals through clear requirements and multi-year procurements, Caudle said, and the service must turn concepts of operations into concepts of deployment. “How do I get this into the theater?”

DIU Evolution

That is one of the jobs of DIU, the Defense Innovation Unit directed by Doug Beck, recruited by the late secretary of defense Ash Carter, who Beck said was prescient about the direction industry was going and realized “we must leverage the incredible technology in our commercial tech sector,” Beck said.

“What he saw was that in so many areas of technology – artificial intelligence, autonomy, biotech, space, cyber – those areas of technology are going faster in order to meet the relentless demands of billions of consumers around the world,” much faster than “they possibly could in our bespoke only” defense market.

The nation is now at a tipping point, he said, where the president, secretary of defense, commercial tech sector and Congress all “get it” and need to move that technology to the field. DIU’s first iteration was building a bridge to the tech sector, version 2.0 was proving that commercial technology could help solve military problems and the latest version, call it DIU 3.0, is aimed applying technology “with strategic effect,” and doing so at scale.

One such effort is Replicator, a Department of Defense effort to field thousands of attritable, autonomous, uncrewed systems to counter China’s growing naval capability. The initial effort is about creating the capability and then doing that “over and over again,” Beck said. “We are on track for both of those objectives.”

He said he couldn’t talk about actual systems that are part of the effort, but said tranche 1 is “off to the races” and they are working on tranche 2, with a deadline of August 2025.

Columbia Status

Matthew Sermon, the executive director, PEO Strategic Submarines, addressed the Columbia-class submarine program, identified as being well behind schedule, according to a Navy shipbuilding review.

“Columbia is becoming a ship,” with the lead ship is under construction, stable requirements and a mature design, he said. However, it has experienced “lead ship challenges,” which he said could be expected in the first ship designed entirely in a 3D model.

“We’re not going to surrender that lead ship schedule,” he said, and the program is moving to match the production cadence required by the Navy.

Speaking of innovative technology, he said additive manufacturing is entering the workforce, although it may not be as widely distributed as previously thought.

“We have narrowed that down to six critical materials” and the related parts, he said. “We’re going to prove it out, we’re going to destructively test it ... we’re going to get it right.”

Ursa Major Signs Contract with US Navy for Next Gen Solid Rocket Motors for Standard Missile



PHILIPPINE SEA (April 5, 2024) The Arleigh Burke-class guided-missile destroyer USS Higgins (DDG 76) launches a Standard Missile (SM) 2 from a forward launcher while operating in the Philippine Sea, April 5, 2024. (USN photo by MC1 Hannah Fry)

DENVER, April 8, 2024 – Ursa Major, America's leading privately funded company focused solely on propulsion, announced a contract today with the Naval Energetics Systems and Technologies (NEST) Program to develop and hot fire test a prototype solid rocket motor (SRM) for the U.S. Navy's Standard Missile (SM) program. Under this contract, Ursa Major will develop a new design and apply the company's revolutionary manufacturing process to the Navy's workhorse Mk 104 dual-thrust rocket motor in coordination with the Navy's Program Executive Office Integrated Warfare Systems 3.0, Naval Air Warfare Center – Weapons Division at China Lake, and the Naval Surface Warfare Center at Indian Head.

The Mk 104 SRM powers the Navy's SM arsenal, including the SM-2, used for surface-to-air defense; the SM-3, used for ballistic missile defense; and the SM-6, an anti-air, land, and sea missile. In 2022, the Missile Defense Agency stated

that the SM-6 is the only missile capable of intercepting maneuverable hypersonic missiles. While the Mk 104 is a high-performance motor, legacy models are challenging to manufacture. Using the company's cutting-edge [Lynx](#) production process for SRMs, Ursa Major will leverage additive manufacturing to design a high-performing motor built for manufacturability and reliability.

"We are proud of the Navy's support and recognition of Ursa Major as a trusted partner to develop the next generation of Mk 104 solid rocket motors," said Ursa Major founder and CEO Joe Laurienti. "Our new approach to manufacturing SRMs allows Ursa Major to quickly develop high-performing motors at scale, driving volume and cost efficiencies to address this critical national need."

"PEO IWS is excited to work with Ursa Major on this effort to bolster a critical component of the Nation's industrial base," said Captain Thomas Seigenthaler, the director of PEO IWS 3.0. "The production of solid rocket motors is a top priority, and we are impressed with Ursa Major's innovative approach to address manufacturing challenges."

Lynx, Ursa Major's innovative new approach to designing and manufacturing SRMs, was introduced in November 2023. The manufacturing process uses additive manufacturing and a product-agnostic tooling system to rapidly produce scalable SRM systems without expensive or time-consuming re-tooling or re-training. Learn more [here](#).

April 8 Red Sea Update

SEAPOW

The Official Publication of the Navy League of the United States

U.S. Central Command, April 8, 2024

12:15 p.m. and 2:40 p.m. (Sanaa time) on April 8, U.S. Central Command (USCENTCOM) forces successfully engaged and destroyed an air defense system with two missiles ready to launch, a ground control station in Houthi-controlled areas of Yemen, and one unmanned aerial system launched by Iranian-backed Houthi terrorists from Yemen over the Red Sea. There were no injuries or damage reported by U.S., coalition, or commercial ships.

Separately, at approximately 8:00 a.m. (Sanaa time) on April 7, an anti-ship ballistic missile was launched from a Houthi-controlled area of Yemen toward the Gulf of Aden where a coalition ship was escorting M/V Hope Island, a Marshall Islands flagged, U.K. owned, Italian operated cargo ship. There were no injuries or damage reported by U.S., coalition, or commercial ships.

This was the fifth observed missile launch against this coalition ship and M/V Hope Island.

USCENTCOM is dedicated to protecting the freedom of navigation and making international waters safer and more secure for

coalition and merchant vessels.

USS Antietam Shifts Homeport to Hawaii



By Commander, U.S. 3rd Fleet Public Affairs, April 8, 2024

JOINT BASE PEARL HARBOR-HICKAM, Hawaii —

The Ticonderoga-class guided missile cruiser USS Antietam (CG 54) arrived to its new homeport of Joint Base Pearl Harbor-Hickam, Hawaii, April 5, as part of a planned rotation of forces in the Pacific.

Antietam is now assigned to Commander, Naval Surface Group Middle Pacific and U.S. 3rd Fleet.

Antietam departed Yokosuka, Japan, Jan. 26 to transit to Hawaii and assist in enforcing international fisheries law during their Oceania Maritime Security Initiative (OMSI) mission. OMSI is a Secretary of Defense program leveraging Department of Defense assets transiting the region to increase the Coast Guard's maritime domain awareness, ultimately supporting its maritime law enforcement operations in Oceania.

"I'm proud of the Antietam crew for their execution of the Oceanic Maritime Security Initiative during our homeport shift from Yokosuka, Japan to Hawaii," said Capt. Victor Garza, commanding officer of Antietam. "I thank the families for the support they give their Sailors. It is their strength that enables us to go to sea."

During Antietam's transit to Hawaii, the ship made port calls in major naval ports including Suva, Fiji and Apra Harbor, Guam.

Aloha to Antietam and welcome to Hawaii!

The mission of Commander, Naval Surface Group Middle Pacific is to manage the overall warfighting capability of the Surface Combatant Force homeported at Joint Base Pearl Harbor-Hickam, Hawaii; to coordinate through the Fleet Response Plan cycle the manning, operations, combat systems, engineering, maintenance, training, logistics, administration, and support of assigned units to achieve the highest levels of combat readiness.

An integral part of U.S. Pacific Fleet, U.S. 3rd Fleet operates naval forces in the Indo-Pacific and provides the realistic, relevant training necessary to execute our Navy's role across the full spectrum of military operations – from combat operations to humanitarian assistance and disaster

relief. U.S. 3rd Fleet works together with our allies and partners to advance freedom of navigation, the rule of law, and other principles that underpin security for the Indo-Pacific region.

HII Awarded \$74 Million Contract to Support U.S. Navy Vertical Launch Systems



Research and development will enhance fleet defensive capabilities

MCLEAN, Va., April 09, 2024 (GLOBE NEWSWIRE) – HII (NYSE: HII) announced today that its Mission Technologies division was awarded a \$74 million contract to research, analyze and develop enhanced capabilities for the Mk 41 and Mk 57 vertical launching systems (VLS) onboard U.S. Navy surface ships.

The task order, administered by the Naval Surface Warfare Center (NSWC) Port Hueneme Division, also applies to associated naval surface weapon systems, combat systems and sensors employed within the Navy.

HII's statement of work includes outfitting the first *Zumwalt*-class destroyer (DDG 1001) with the latest Mk 57 vertical launch system universal canister electronics unit. The unit, developed by HII, ensures warfighters can fire any missile from any VLS cell on *Zumwalt*-class ships.

"We are extremely pleased to continue our support to the U.S. Navy, providing critical research, development, test and evaluation in support of vertical launch systems for NSWC Port Hueneme," said Todd Gentry, president of Mission Technologies' C5ISR business group. "Facilitating the insertion of technology into naval weapon and combat systems maximizes defensive capabilities for our warfighters, giving them a distinct advantage over adversaries."

A photo accompanying this release is available at: <https://hii.com/news/hii-award-support-us-navy-vertical-launch-systems-2024/>.

HII will also leverage industry capabilities to support rapid design prototyping, technological improvements and engineering requirements associated with obsolescence issues.

HII was awarded the recompeted task order under the Department of Defense's Information Analysis Center Multiple Award Contract vehicle (IAC MAC). These IAC MAC task orders are awarded by the U.S. Air Force's 774th Enterprise Sourcing Squadron to develop and create new knowledge for the enhancement of the Defense Technical Information Center repository and the research and development and science and technology community.

The task order has a five-year term. Most of the work will be performed in Syracuse, New York, and Arlington, Virginia.

HII's support to NSWC Port Hueneme is an extension of work performed under a previous contract awarded in 2021.

Northrop Grumman Completes Assembly of Manta Ray UUV



A full-size prototype of Manta Ray, a new class of uncrewed underwater vehicle, is assembled in Northrop Grumman's Annapolis facility. (Photo Credit: Northrop Grumman)

ANNAPOLIS, Md. — April 8, 2024 — (PHOTO RELEASE) Northrop Grumman Corporation (NYSE: NOC) completed assembly of a full-size uncrewed underwater vehicle (UUV) prototype known as Manta Ray. A new class of UUV, it is an extra-large glider that will operate long-duration, long-range and payload-capable undersea missions without need for on-site human

logistics.

Manta Ray was built through a [Defense Advanced Research Projects Agency \(DARPA\) program](#) aimed at advancing key technologies to benefit future UUV designs, including techniques to manage energy, increased payload capacity, low-power propulsion and more.