BlueHalo to Test C-UAS System on Marine Corps JLTV



By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – BlueHalo will be testing its LOCUST Laser Weapon System on a U.S. Marine Corps Joint Light Tactical Vehicle (JLTV), the company's chief executive officer (CEO) said.

BlueHalo' s primary focus is on defeating Group1, 2, and 3 unmanned aerial systems (UAS), as well as counter-rocket and counter-mortar systems, said Jonathan Moneymaker, CEO of Blue Halo, in an interview with *Seapower*.

"As the foundation of P-HEL, BlueHalo's LOCUST Laser Weapon System (LWS) combines precision optical and laser hardware with advanced software, artificial intelligence (AI), and processing to enable and enhance the directed energy "kill chain," the company said in a release. "LOCUST LWS addresses the inherent need for mobility and quick deployment-tracking, identifying, and engaging of a wide variety of targets with its hard-kill high energy laser.

"We look at it from an integrated layered defense strategy," Moneymaker said. "Five years ago, we saw the evolution of drone warfare, today one of the fastest-evolving threat vectors. We wanted to engage that from a variety of modalities. We offer solutions and products that range from passive detection in our Skyview product to RF detect-anddefeat in our Titan product, our LOCUST Laser Weapon System, expanding into more global C2 [command and control], and starting to expand into our next-gen kinetic interceptor.

As of April 2024, BlueHalo had delivered two P-HEL systems to the U.S. Army, which has deployed them to unspecified locations.

"It is most certainly [deployed] in areas of conflict," Moneymaker said. "It's real, it's deployable, it's reliable, and frankly needed to bring service members home."

"We're very proud to be the first operationally deployed [HEL] system," Moneymaker said, noting that its system has surpassed operational 10,000 hours and that the customer having a system that "has finally reached a level of reliability that they've been looking for as they've been fielding these capabilities."

He said that the next expansion would be a mobile high-energy laser weapon — on an infantry squad vehicle or a JLTV. The first mobile system was delivered in late March.

"The JLTV integration will be on the Marine Corps' JLTV, so we've been working with all of the services as it relates to deployment of LOCUST," he said. "We certainly have been having initial conversations with afloat Navy on how can we deploy these systems in the best configuration to counter some of the activity we're seeing in the Red Sea."

Moneymaker said he sees great potential in the "proven, ready

[P-HEL] system" for naval use with its roll-on/roll-off capability.

The work for the Marine JLTV is through the Department of the Navy's Ground-Based Air Defense program, as well as through the Joint Capabilities Office and U.S. Army Rapid Capabilities and Critical Technologies Office (RCCTO).

Moneymaker said the LOCUST is very effective against a [drone] swarm, noting that the capability is part of the test criteria. The LOCUST uses Wizard artificial intelligence and machine learning for target identification and aimpoint recognition.

The P-HEL is powered by a generator or batteries, and the company is looking at how to tie the HEL into shipboard power.

The company's HEL is built primarily at the BlueHalo campus in Albuquerque, New Mexico, with work expanding to Huntsville, Alabama, and Rockville, Maryland. BlueHalo, headquartered in Arlington, Virginia, employs 2,400 workers and is approaching revenue of \$1 billion annually. The company has other facilities in Dayton, Ohio, and Fort Lauderdale, Florida.

Coast Guard Station Kodiak Retires its MH-65 Dolphin Helicopters After 36 Years of

Service in Alaska



U.S. Coast Guard 17th District Public Affairs, April 24,2024

KODIAK, Alaska — The Coast Guard retired the Air Station Kodiak MH-65 Dolphin helicopter fleet during a ceremony, Tuesday.

Capt. Timothy Williams, commanding officer of Air Station Kodiak, presided over the ceremony honoring the 36 years of service the MH-65 Dolphin airframe and its crews provided to the Arctic region.

Air Station Kodiak currently has a rotary-wing fleet of six MH-60 Jayhawk helicopters. The unit will shift to a rotarywing ship-and-shore based fleet of nine MH-60 Jayhawks in 2025.

Air Station Kodiak will be the fourth Coast Guard Air Station to transition to a single rotary wing fleet of MH-60 Jayhawk helicopters. Air Stations Borinquen, Traverse City, and New Orleans all recently completed similar transitions. "For decades, the cutter and helicopter team were the core of the ALPAT mission," said Cmdr. James Kenshalo, MH-65 Dolphin pilot. "Together they projected force and protection to the most extreme remote regions of our nation's territories, operating beyond where help could reach. Countless lives have been saved because of these dedicated crews."

Commissioned in January of 1988, the Alaksa Patrol (ALPAT) mission executed solely by MH-65 Dolphin aircrews provided Coast Guard Cutters with a reliable airborne asset during Alaska Patrols.

To read more about the Coast Guard MH-65 Dolphin and MH-60 Jayhawk helicopters click the following links:

<u>SRR – MH-65 (uscg.mil)</u>

<u>MH-60T Service Life Extension Program (uscg.mil)</u>

HASC Members Prepare to Dive into Navy Budget



Members of the House Armed Services Committee seem prepared to overturn some Navy decisions as outlined in the fiscal 2025 budget request, including retiring some ships early and funding only one Virginia-class submarine.

"What has happened is, as the top line is increased, the game has become, 'we'll add a bunch of the stuff that we know Congress won't add, and we'll take out stuff that we know Congress is going to put back in.' And that will be a net gain. That game has to stop," said Rep. Wittman (R-Virginia), chair of the House Subcommittee on Tactical Air and Land Forces.

As for the Virginia-class sub, Wittman said the Navy position that the program is behind anyway and the shipbuilders can't keep up doesn't make sense.

"It really is about demand signal and, and you can't have it both ways. You can't say, well, the reason we are reducing the submarine request is because we don't think the industrial base can do it. That's wrong," he said. "The industrial base can do it if you send them the demand signal. We're at about 1.6, I think, submarines today annually, we need to be at 2.3. The way we get there is to send the proper demand signal." Rep. Joe Courtney (D-Connecticut), the ranking member on the Subcommittee on Seapower and Projection Forces, said a defense industry report issued in December highlighted the need for procurement stability.

"Procurement stability was the watchword throughout that report," he said. "And, we're sacrificing that. I mean, literally, within weeks" of the report.

Naval aviation is also an issue, as the Navy has an air attack shortfall, noted moderator Bryan Clark, a senior fellow at the Hudson Institute.

"There are some, thanks to Congress, some Super Hornets being procured in this year's appropriations," he said. "But there doesn't seem to be a clear path ahead for the carrier air wing."

This drew an animated response from Wittman, who said there doesn't seem to be a sense of urgency about the situation.

"The challenge now is to make sure we get enough F-35s in production to be able to sustain these carrier wings," and to make sure there's not a "valley" as the Super Hornets retire, "where now all of a sudden you have aircraft carriers sitting at the dock because there's no aircraft on board. That means we have to get those lines to intersect. That's more of a challenge than what a lot of folks think because the tactical air component of that is about maintaining production."

The aircraft also need technical refresh three, an upgraded software capability that contractor Lockheed Martin warned will be delayed.

"I mean, there needs to be an all hands on deck mentality to go, no, that's not acceptable. We need these aircraft and now we're going to have hundreds of aircraft sitting on the tarmac waiting to get a software upgrade, right?" Wittman continued, "F-35 is it, right? That's all we have, right? Let's get our fanny in gear and get this thing going and get it on the decks of the aircraft carriers, get it in the hands of our pilots in the Air Force. Get our fanny in gear. I mean, this is it. I hate to get fired up about it, but I'm fired up about it because this is the future of tactile air for this nation. Get our fanny in gear," he said, slapping the arms of his chair for emphasis.

Workforce Woes

The panel, which included Reps. Donald Norcross (D-New Jersey), Jen Kiggans (R-Virginia) and Ronny Jackson (R-Texas), also discussed the workforce issues plaguing the defense industry.

Kiggans, a former Navy helicopter pilot, said she sat on a HASC task force looking at recruitment and retention and what rose to the top were several issues: Compensation, housing and child care.

"That 5.2% pay raise that we just gave our servicemen and women in the appropriations bills that were passed a couple weeks ago, that's a good starting place, but there's still more work to do," Kiggans said.

As for housing, she said college dorms are better than the places junior enlisted Sailors and Marines are asked to live. "We have to do better for our junior Soldiers, Sailors and Airmen and Marines to be able to expect them to want to do the job that we ask," she said.

On the pay issue, Wittman said, "this 5.2% increase this year was great, but remember, the lower you are on the salary scale, the percentage is not as quite as much in your paycheck. Take for example, if you come into our services, if you are a private in the Army, the Marine Corps, third-class Seamen, third-class Airman, your starting salary is \$23,000 a year. That's 11 dollars and 50 cents an hour asking you to do the most dangerous work of the nation, putting your life on the line. And guess what? You go to Chick-fil-A and serve chicken sandwiches and make more money in a much, much less challenging or dangerous environment. We have got to fix the junior enlisted salary differential."

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 noncritical, smaller items such as knobs, clips and caps. Tier 2 AM printers focus on "Industrial Polymers," including noncritical 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 Virginiaclass 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 dieselelectric 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 highprofile 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."

Future Challenges May Involve Rethinking How the U.S. Fights, Speakers Say



Amiral James Kilby, the Vice Chief of Naval Operations, speaks at the luncheon panel on Monday.

The United States is facing a variety of challenges, from Houthi rebels in the Red Sea to the People's Republic of China, but the preferred American way of fighting – massive overmatch – may not be tenable for the future, two panelists said during the luncheon event at the opening day of Sea-Air-Space.

China is investing in its military faster than the U.S. is, and the new U.S. defense budget is a 1% increase in the top line, which amounts to a decrease with inflation, said retired Admiral James "Sandy" Winnefeld, chair of the President's Intelligence Committee.

"Even if we could build the ships that we wanted to build, we would have trouble maintaining them all," he said. "And then manning is a challenge for us. So, it's entirely possible that the means that we want to apply to this problem ... are not going to be there." What the nation may need to do is adopt a "whole of nation approach, not just a military-on-military approach, which involves diplomacy, economics, information, and of course the military," he said.

Vice Chief of Naval Operations Admiral James Kilby said one way forward is with disruptive technology, the sort being developed by the Disruptive Capabilities Office, the group set up last fall by Secretary of the Navy Carlos Del Toro to more quickly move technology to the field.

He wouldn't go into specifics of what the office is working on, but it's intended to look at a broad swatch of technology and see what can be tested and moved rapidly to the warfighter.

"The Disruptive Capabilities Office is meant to look across the whole DoD spectrum and understand what can be brought to bear quickly and to put that together in a test environment, test it, and have some confidence in it before we go after it," he said.

"... That is different behavior than how we're used to doing it, and it's basically capability focused," he said. It builds on the work of Task Force 59, which deployed maritime unmanned systems, and is aimed at ways to "produce some capability now versus the perfect in future," he said.

Retention is Good but Workforce Challenges Remain,

Service Chiefs Say



Navy CNO Admiral Lisa Franchetti speaks at the opening session of Sea-Air-Space 2024

Retention in the Navy and Marine Corps is going well, but recruitment remains a challenge across the services, including the Maritime Administration, and the services must set priorities in a time of great challenges and tight budgets, sea service chiefs said in the kickoff keynote panel of Sea-Air-Space 2024.

Undersecretary of the Navy Erik Raven, who introduced the panel, asked what is needed to continue U.S. dominance. "We need budgets to support our strategy, with people and readiness coming first," he said. He noted the fiscal 2025 Navy budget request involves "some tough choices, putting quality of service and readiness at the top of the priority list means other program must either must make do or take risks."

But the proposed budget "boldly advances our undersea capabilities for both U.S. and AUKUS demands, solidifies our commitment to 31 amphibious ships, and advances the landing ship medium into production," he said.

The panelists then took up the issue of budgets and the challenges facing the services. Chief of Naval Operations Admiral Lisa Franchetti said the service has only a .7% increase in its budget in the fiscal 2025 request, forcing it to set priorities.

Number one is the Columbia-class submarine program, next is near-term readiness in "our forces and our people," and next is working with industry partners to make that happen.

"You can see the demand signal: 88 ships under contract, 66 under construction ... we know we need a larger Navy, every study since 2016 has shown that," she said. "I think the most effective way to work on that right now is invest in our industrial base, invest in the workforce, invest alongside our industry partners in the infrastructure necessary to really set the conditions to speed up the production and the throughput of the ships and submarines that we need to put more players on the field."



General Chris Mahoney, the assistant commandant of the Marine Corps.

General Chris Mahoney, the assistant commandant of the Marine Corps, said the fiscal '25 budget funds the LPDs, LHAs and LSMs the service needs, so "for what allows us to be ready, the 25 program right now is looking very strong."

Admiral Linda Fagan, commandant of the Coast Guard, said "demand for the Coast Guard is deafening and it's worldwide," from dealing with the aftermath of the collapsed bridge in Baltimore to working with small nations that need the presence of cutters to help defend their interests.

She noted there is great Coast Guard demand for new ships as well.

"We, too, are in the largest acquisition that we've had since

World War II. We compete for the same industrial base space, both new construction and repair with the Navy. And it's critical for the nation that we've got that kind of reliable access and commitment to the new ship capacity and then repair capacity and maintenance capacity for the ships that are operating."

The Maritime Administration, too, is building new ships, albeit on a much smaller scale, said MARAD Administrator Ann Phillips. Its new builds, five new training ships, are for the Merchant Marine academies.



Admiral Linda Fagan, commandant of the U.S. Coast Guard. "We thank Congress for the funding to be able to build these vessels, but when you have a 100% design, when you have firm fixed-price contracts, when you have by law a very small change order budget, and you have commercial best practices being applied, you are able to move through this vessel construction and vessel procurement," Phillips said. "We're on budget. We're nearly on time."

Retention and Recruitment

Of course, having ships is one thing, but the services must be able to crew them and maintain them, which are challenges of their own.

"I'm happy to say that retention is very good in the Navy right now in almost all of our fields. And so, to me, that's a signal that people are really committed to our mission," Franchetti said.

The service is "very focused" on recruiting, she said. "We can have all the best platforms in the world, but if we don't have the warfighters that can deploy them, we're not going to be an effective Navy," she said. "So, we're focused hard on recruiting," including by elevating the head of Navy recruiting to a two-star admiral.

The Navy is also "expanding the pool of folks that can join our Navy team," including by boosting the age of enlistment to 42. "If anybody out there is not turned 42 yet, there should be some recruiters around who are going to sign you up," she said. "And if your kid is above 18, you and your kid can be enlisted simultaneously."

The Coast Guard has had a shortfall as well, Fagan said, but has "kind of recovered" and is looking to recruit more effectively as well, including by boosting its recruiting capacity by nearly 25% and going after young people where they are, including standing up junior ROTC programs and even going on Twitch.

"It's an online collaborative gaming site, which,

surprisingly, there were a lot of 20-year-olds," she joked. "There's the target audience."

Mahoney said retention numbers in the Marine Corps are "very, very good. We've made mission, we will make mission this year. You heard here first, our attention numbers are good and getting better, but it's not a condition of stasis. You don't declare victory and walk on to the next issue."

The Marines must look at the factors that make and keep young men and women Marines, "and that equates to their conditions of the barracks, access to healthcare, access to childcare, good childcare, good gyms. And you've got to bring in new ideas to continually, not sit there and declare victory once again, but to make sure that you are addressing needs that they have," Mahoney said.

Lockheed Martin Advances Aegis Weapon System Coordination with Two Missile Systems



Lockheed Martin (Booth 1001) recently completed a successful Flight Test Aegis Weapon System-32 using the combat system to intercept a medium-range ballistic missile target using the Standard Missile-6 Dual II software upgrade.

The test, supported by the Missile Defense Agency, U.S. Navy, and Lockheed Martin, tested a real-world scenario and proved the versatility and strength of the Aegis Combat System, showing the latest weapon system configuration can defeat this class of threat working with the SM-6.

"We rapidly advance and integrate our technologies to ensure the U.S. Navy has the capabilities its Sailors need to meet their toughest missions today and tomorrow," said Amr Hussein, vice president and general manager of multi-domain combat solutions at Lockheed Martin Rotary and Mission Systems. "This flight test utilized the latest updates to Aegis Baseline 9, which improves tracking, identification and intercept capabilities to solve for evolving, complex threats."

Lockheed Martin is the Combat System Engineering Agent (CSEA),

responsible for the design, development, integration and test of the weapon system that successfully planned, searched, tracked, and conducted the engagement of the target, including launching and guiding the SM-6 intercept.

In response to written questions from Seapower, the company said the effort tested its latest designs as it continue to evolve and improve the system to defeat ever evolving and challenging threats.

The company has already integrated more than 60 into the Aegist Combat System, including a range of effectors and sensors, both domestically and for six international allies.

PAC Test

The company also investing in technology enhancements to integrate PAC-3 Missile Segment Enhancement (MSE) into the MK 41 Vertical Launching System to support employment with the Aegis Weapon System.

This integration would deliver a hardened defense to maritime fleets using an existing, well-tested interceptor to defends against threats including tactical ballistic missiles, cruise missiles and aircraft.

The company plans to participate in a live-fire event this year, although events are still largely under wraps. Last year, the company participated in an S-Band radio test which simulated the radio that Standard Missiles and others use to get midcourse guidance.

"That was a successful test, so all of the major lab-based, shore-based tests without doing a live fire have been successfully completed," Tom Copeman, vice president of naval systems and strategy for Lockheed Missiles and Fire Control, told Seapower in an interview. "... All prepping for a live-fire event which is scheduled for 2024." The Aegis Combat System has a long and successful record, and the PAC-3 has a lengthy pedigree as well, "so we're confident that the marriage of these two very, very mature systems will yield a much-improved capability for the United States Navy if they choose to move forward with it," Copeman said.

The number of Aegis Weapon Systems and PAC-3 missiles could lead to a somewhat widespread use in the fleet should the Navy choose to go that route, and Copeman said "we'll continue to internally invest to keep the project moving, so if they do decide to go, it could be fairly rapidly implemented if the Navy says they want to do it."

"Think about the capacity that will enable, which is really a huge capability that we can give the U.S. Navy," Hussein said.