### CNO to Elevate Navy Safety Center to a Two-Star Command



A helicopter from Helicopter Sea Combat Squadron 3 combats a fire aboard the amphibious assault ship USS Bonhomme Richard (LHD 6). U.S. NAVY / Mass Communication Specialist 1st Class David Mora Jr.

ARLINGTON, Va. – The chief of naval operations is increasing the focus of the Navy on safety in its operations by elevating the Naval Safety Center to a full command.

CNO Adm. Michael Gilday, speaking Jan. 11 to an audience at the Surface Navy Association's annual symposium in Arlington, said the Naval Safety Center in Norfolk, Virginia, would be redesignated the Navy Safety Command and its commander would be a two-star admiral with experience as a carrier strike group commander.

"That command will evaluate how the entire Navy – from the fleet commander down – manage safety and risk, and it will

grade how effectively commands are self-assessing performance," the CNO said.

The commander of the Navy Safety Command would report directly to the CNO.

Gilday said he considered the Navy's Board of Inspection and Survey as a model for the Naval Safety Command and how it will perform.

The Navy has suffered a number of high-profile collisions at sea in recent years, most notably the 2017 collisions of the Arleigh Burke-class guided-missile destroyers USS Fitzgerald and USS John McCain with merchant ships, resulting in the deaths of 17 Sailors. The amphibious assault ship US Bonhomme Richard was damaged beyond economical repair in 2020 by a fire while pierside.

Gilday noted in his speech that the fleet had suffered "14 other major fire events in the past 12 years."

### Kitchener: SWO Retention on An Upward Trend



Vice Adm. Roy Kitchener, speaking at the Surface Navy Association's annual symposium. U.S. NAVY ARLINGTON, Va. – The retention of surface warfare officers is improving, the U.S. Navy's "surface boss" said, one metric that affirms the Navy's efforts to assess its readiness and to take action to address the challenges.

"Within the wardroom, SWO retention continues on an upward trend, a 5% increase over the past five years, exceeding or remaining on par with the aviation and submarine communities," said Vice Adm. Roy Kitchener, speaking Jan. 11 to an audience at the Surface Navy Association's annual symposium in Arlington, Virginia.

"While a positive indication, there's still a lot of work to do, and we're really not satisfied where we are," Kitchener said.

"We'll be looking at the entire career spectrum through an analytical lens to determine what our officer retention goal should be," he said. "We need to think differently about how we manage retention. I would submit that past retention policies may not help us retain the best talent as we move into the future."

Kitchener said the Navy is looking at how other services and other high-performing organizations "manage their talent pool."

He also said the Navy will look at important factors such as childcare and family planning.

"We're also devoting resources to retention in a number of ways throughout the SWO career path with increased compensation, diverse education opportunities, tours within industry, and additional flexibility in their career path," he said. "We have a lot of work to do in this area, but we are committed to the task."

### Lockheed Martin Upgrading SPY-1 Radars on 21 DDGs to Counter Evolving Threats



Arleigh Burke-class guided-missile destroyer USS Barry (DDG 52) pulls into Commander, U.S. Fleet Activities Sasebo, Japan, in 2016. U.S. NAVY / Mass Communication Specialist 3rd Class Kristopher S. Haley

ARLINGTON, Va. – Lockheed Martin is continuing to upgrade primary radars on a number of the U.S. Navy's guided-missile destroyers (DDGs), a company official said. Older SPY-1 versions are being modified with digital Low Noise Amplifiers, or LNAs, which can improve their sensitivity and thereby improve the accuracy, range and discrimination of the radar.

"How do you develop a low-cost, high-payoff solution to keep SPY-1 relevant as the threat evolves?" Jon Rambeau, Lockheed Martin's vice president and general manager for Integrated Warfare Systems and Sensors, asked rhetorically in an interview with *Seapower*, pointing to the LNA as a step in that direction.

The SPY-1 radar is the primary sensor of the Aegis Combat System on the U.S. Navy's Ticonderoga-class cruisers and Flight I, II and IIA Arleigh Burke DDGs and is used to detect and track aircraft, cruise missiles and ballistic missiles.

The LNA is part of the upgrade of the 21 Flight I and II DDGs to enable a "full BMD [ballistic missile-defense] capability in accordance with the 2030 Missile Defense Review," Rambeau said.

He said Lockheed Martin is under contract for upgrading nine SPY-1 arrays under funding provided by the Navy and the Missile Defense Agency. The arrays are being tested and made ready for installation of the DDGs.

Rambeau there was "some discussion around the Navy's future plans for those 21 ships and that's something we're watching very carefully."

He said the LNA upgrade may be something the company thinks can be relevant for international customers as well.

### Q&A: Mark Vandroff, CEO, Fincantieri Marinette Marine



The 21st Littoral Combat Ship, the future USS Minneapolis-Saint Paul, launches sideways into the Menominee River in Marinette, Wisconsin, on June 15, 2018. LOCKHEED MARTIN Mark Vandroff, a retired Navy captain and engineering duty officer, was installed last summer as CEO of Fincantieri Marinette Marine, shipbuilder of the U.S. Navy's Freedom-class littoral combat ship and now the Constellation-class frigate. A former ship program manager, he brings extensive customer experience to his company.

Vandroff was interviewed by Senior Editor Richard R. Burgess. Excerpts follow.

With some experience now as a shipyard official, what has surprised or impressed you about being on this side of the shipbuilding equation?

**VANDROFF**: Surprised would be a strong word, but I'm impressed by the dedication and hard work of the men and women who build ships. And by "building ships" I mean a very wide range of activity. One of my mentors, teachers and former bosses, Sean Stackley the former LPD 17 program manager, former ASN RDA [assistant secretary of the Navy for research, development and acquisition] and now senior executive with L3Harris - used to tell us when he was coaching shipbuilding program managers that if you can build a ship, you can do anything because nothing is harder or more complicated than building a ship, the most complex of all human undertakings. What the government program managers deal with is certainly a complicated process on the government side, but now, with a few months as the head of the yard here in Marinette, it's an even renewed appreciation for just how complicated and just how many things have to go right to get a ship built, everything from the industrial trades, welding, cable pulling, painting to all of the planning and industrial methods, to the engineering design to the purchasing to the contracting, a myriad of legal compliance for us, and all the finance and economics of a business of that size.

It's not just running a complicated business, but it's running a complicated business with a very complicated product and a series of complicated relations both with customers and with sub-suppliers.

### What insight has your experience as a Navy ship procurement official given you that can help improve the shipbuilding industrial base?

**VANDROFF:** When you take someone with program management leadership on the government side and put them into industry you certainly bring an intimate knowledge and understanding of what the customer wants.

Early on in my tenure, some of the folks on my leadership team seemed puzzled during a meeting by something that our primary government partner on the frigate program had asked us to do. Everyone was scratching their heads and were like 'Why would they want us to do that?' I said, back in my days in the DDG 51 program, if I were the government PM, I would want us to do exactly what Capt. Smith had just said even though it didn't necessarily make sense to someone who didn't have the background of the kind of dynamics that play in at NAVSEA [Naval Sea Systems Command] and within the OPNAV [Office of the Chief of Naval Operations] and Pentagon staff. I immediately understood what the government customer was looking for and I could translate that to my industry colleagues.

This will sound odd as the head of the Mariette Marine shipyard: One of the things about our current shipbuilding industrial base is that it's very highly specialized. My yard is highly specialized, given the fact that I'm constrained by the St. Lawrence seaway into the size of ships that I can build. Huntington Ingalls Newport News Shipyard really wouldn't ever build something small because given the overhead of maintaining facilities to build aircraft carriers. The economics constrain them to build big and for other yards each have their niche. While niches are very efficient and people can get very good at doing their special thing, I worry that the future will require a great deal more flexibility of yards that can do lots of things because the future is always uncertain. This is one of the reasons Fincantieri Marine Group is creating a system of yards across our Wisconsin sites, to continue supporting our customers' future requirements and missions.



Mark Vandroff, CEO of Fincantieri Marinette Marine. What kind of supply-chain issues currently are of concern to Marinette Marine?

**VANDROFF:** Supply chain is a hot topic across the shipbuilding industry. Certainly, COVID had a major impact on a lot of our sub-suppliers, mostly in their ability to hold schedule. We've seen that across both commodities and finished products especially electronics and anything that has a microchip as a component, but we've also seen it in things like switch gear and transformers. Most shipbuilders today rely on a just-intime delivery system because you want to avoid the warehousing costs of keeping large amounts of material warehoused. One of my top concerns right now is the supply chain impacts we're seeing.

What capital improvements are in work to get ready for the frigate program?

**VANDROFF:** We're making four extensive capital improvement investments in Marinette Marine in order to be able to build the frigate.

Investment No. 1 is in a shiplift. Currently, we build the LCS on land and then introduce it to the water via the timehonored system of a side-launch. We're not going to be able to stern-launch or side-launch a frigate. It's too big and we would have to install certain equipment — vertical launch systems, for example — after we side-launched it because of alignment issues. That's not a very economically efficient way to build a ship.

I would urge you and your readers to Google 'shiplift' and look at YouTube, there's some great videos from around the world. It's really cutting-edge shipbuilding technology. There's a transfer platform held in place by, in our case, a set of 58 winches that run attached, 29 on each side, to the platform. You can translate the ship from the land onto the platform, and the winches take tension as the ship rolls onto the platform in order to keep the platform level. And then when you're ready to put the ship into the water, the winches lower the platform until you get to the point where the ship is then floating from its own buoyancy.

For someone who's building a ship on the Great Lakes here in the Menominee River floating out into Lake Michigan, the ability to do that with a shiplift is very attractive. The shiplift construction is ongoing and we expect it to complete by the end of 2022.

Right now, we build the littoral combat ships and multimission surface combatants in a two-bay erection facility. We can assemble an entire LCS indoors. Building indoors is very important in the Wisconsin winters. That erection bay is not big enough for a frigate. The frigate-size erection bay, Building 34, is nearing completion for May. It will have two bays, each big enough to hold an entire erected Constellationclass frigate.

A new state-of-the-art panel line will be done in a few weeks. This will take steel, cut it into panels, stiffen it up, and then weld it together into modules and sub-assemblies all in one covered area.

We do also have plans sometime early in the frigate process to add to our blast-and-paint capability. When we go to two frigates a year, we will need more blast-and-paint capability and we have a plan to repurpose an old building.

#### Do you have any plans to increase the size of your force?

**VANDROFF:** My No. 1 area of effort is the workforce. I will need to increase the workforce in order to fully man the Navy's plan for the frigate program. Between now and the end of 2023, we'll need another 400 workers: about 300 in the trades – welders, painters, shipfitters, electricians – and another 100 engineers and other white-collar workers.

We have a unique concern in the Marinette Menominee area: a missing middle in housing. We pay a nice living wage to our workforce such that they're thankfully making too much to qualify for low-cost government-subsidized housing and yet there's high-end housing, especially along the lake and the river and other places where you would see nice homes. What we really could use is more middle-class apartments in the area of Menominee and Marinette. We've talked to both states about that and they're thinking of creative ways of helping the natural market forces respond to that. Right now, we've got a lot of folks who commute a fairly long way to get to the yard. What I would really like is the available housing to keep the workforce close to the shipyard so that it's convenient for the workers to get to the yard. If we provide a convenient place to work, we will be able to attract the workforce we need.

We still have not received formal requirements from the

federal government that would cause us to have to mandate that our workforce be vaccinated against COVID-19. We've taken steps to provide vaccinations very conveniently and at no expense or time to the employee. We've had a reasonably good turnout, but I fear that there is some percentage as yet unknown of my workforce that would just not feel comfortable being told to take a COVID vaccine. We'll do everything we can to continue to make it convenient for employees to get vaccinated. But if the government lays that mandate upon me, I am very concerned that would have a negative impact on my ability to maintain a sufficiently sized workforce to execute all the work that the yard currently has under contract.

### Some shipyards – like Huntington Ingalls for example – have an apprentice training program. Do you have anything similar?

**VANDROFF:** We do have an equivalent that I'm very excited about that will serve us well in the future and can easily be expanded via the Northeast Wisconsin Technical College [NWTC], a system of technical community colleges in northeast Wisconsin. We have a fabulous relationship with them, and they have gone so far as to hire retired Marinette employees to their faculty. The provide technical training in a variety of shipyard-related skills at their campus, which is within walking distance of the shipyard. They're teaching welding with our welding procedures, using our welding equipment, so a graduate of NWTC, whether it's in welding or ship-fitting or electrical work, cable-pulling or journeyman electrician or entry-level electrician, comes out of NWTC work-ready and we can hire them. As we recruit, those students know that they've got a guaranteed path to a job with us and a career in shipbuilding. We've also reached out to local high schools and their shop programs to encourage the kind of skills set that is useful to us in the shipbuilding industry.

At the white-collar level, the University of Wisconsin Green Bay has reached out to my head of engineering for discussions. They've allowed us to shape their engineering curriculum. Someone coming out with a mechanical engineering degree has got an academic background and a skillset that is well-matched to our needs for entry-level engineers.

#### What is the status of the Constellation-class frigate?

VANDROFF: We're in the detail design phase. The next big milestone of that phase is the critical design review scheduled for February 2022. I have great teammates on the Constellation team: L3Harris, Gibbs & Cox and Trident Maritime Systems. The Navy has been great. I could not ask for a better partner than the current leadership in PMS-515, and so, that's a big milestone for us. It's not the end of detail design but it basically marks the completion of the functional design and shows that we have established the right technical baseline to move forward.

After that, we'll have a production readiness review in March as we continue to achieve a level of production maturity so that we can confidently start building the ship in April of 2022. That review will show that we have the level of design maturity such that we can start building the ship with the right expectation of 'measure twice, cut once.' We don't want to build a ship to an immature state and then have a significant level of rework because it's not good enough for either us or the Navy. We're driving for a very high level of maturity so that we have an efficient start of production in April.

From that point on, we'll go through all the normal milestones that a ship would have after it starts production — the laid keel, eventual float off, trials — and we're looking forward to a delivery to the Navy of the first ship in 2026.

#### Are there challenges to using a foreign-designed hull?

**VANDROFF:** When you take a design that is not U.S. and translate it to the United States to build, you do run into the U.S. Navy technical standards of performance, which are

different than a lot of our partner navies, especially in the area of damage control. That induces modifications to the design. The U.S. Navy's philosophy and standards are more steel and more frequent water-tight bulkheads for different compartmentation.

We now have the Buy American Act and whenever you take perhaps a piece of equipment that would be sourced from a European supplier and sourced out to a U.S. supplier, there will be design changes with that and that's, again, something that we've accounted for and are executing.

What can the Navy and Congress do to make it easier for you to deliver ships on time and on cost?

VANDROFF: Shipbuilding is really hard. There's nothing that the Navy or Congress can do to make it less hard. I will say the Navy always helps when they really understand their requirements and that they have stability in those requirements.

I am fortunate in Marinette in my relationship with my Navy supervisor of shipbuilding partner — the organization that does oversight — has been entirely reasonable. They have been very responsible partners. They're clearly representing the Navy's interest, but they're not doing it in a way that is at all punitive or looking to impact my progress. They're just looking to make sure that the Navy is getting the quality product that they want. For that, I'm very grateful.

If you look at big trends broadly — cost and schedule, but especially cost — a good chunk of our overhead goes to paying the employee healthcare costs. That is getting worse, not better. And that overhead cost gets passed right on to the customer in terms of cost on a contract.

The government has shown some flexibility in the ability for us to have a favorable cash flow. Certainly, COVID helped that, but it helps our financing costs from a business standpoint to have a quicker flow of cash to have a higher percentage of the ultimate cost of a vessel in available progress payments which were done in order to keep the defense industrial base healthy during COVID. Some of those should probably be made permanent, and for a company like mine you would see lower financing costs. Because financing costs make their way into overhead rates, that would then allow us to deliver product more effectively and more cost-effectively to the ultimate customer.

Aegis Going Substantial Transformation, Martin Says

Through Digital Lockheed



USS Wayne E. Meyer (DDG 108) arrives recently at Naval Surface Warfare Center, Port Hueneme Division with the help of a tug boat. The ship's namesake is the late Rear Adm. Wayne Meyer, widely recognized as the Father of the Aegis Weapon System, considered a cornerstone of the military service. U.S. NAVY / Photo by Eric Parsons

ARLINGTON, Va. – The Aegis Combat System is going through substantial digital transformation as its processing speed is increased and more sensors and weapons are integrated with it, a Lockheed Martin official said.

The Aegis Combat System's "relevance to the fleet has never been greater," said Jon Rambeau, Lockheed Martin's vice president and general manager for Integrated Warfare Systems and Sensors, in an interview with *Seapower*.

Rambeau, who formerly worked with the company's Acoustic Rapid Capability Insertion programs to periodically and rapidly upgrade U.S. Navy submarine sensor capabilities through software refreshes, is now continuing the same concept with Aegis. The company is implementing automated test capabilities for Aegis. Rambeau cited the implementation of those on Baseline 10 version as "the most comprehensive evolution of Aegis we've ever undertaken. ... So, we we've automated about 20,000 of our software test procedures as part of our Baseline 10 efforts to try to improve our efficiency and speed of capability to the fleet."

He said the company is "working to implement model-based engineering processes across the board with the goal of getting the same quality product we've always delivered but getting that to the fleet much more rapidly. So, we're focused on speed of capability to make sure we're keeping the fleet relevant."

In a broader perspective, Rambeau said the company is working to focus its culture on creating an environment where government, small business and academia can integrate efforts with the company to work seamlessly across the Aegis enterprise. He credited the work of the Forge, a Navy software development "ecosystem" activity designed to field advanced capability more rapidly, and said the company is working to be positioned to receive the capabilities developed by the Forge "and make sure we're bring the systems engineering rigor and the collaboration to support the responsible integration of those capabilities into the Aegis baseline."

Rambeau also said the company is working to keep Aegis relevant by integrating future hard-kill and soft-kill capabilities, including that of reducing the cost per kill of systems to defeat ballistic and hypersonic missiles. He cited the company's HELIOS laser weapon system, which is the first laser weapon system integrated with Aegis and is going through its first installation on the Arleigh Burke-class guided missile destroyer USS Preble.

### Navy's Newest Fire Scout UAV Version Prepares for Westpac Deployment



Sailors attached to Helicopter Sea Combat Squadron (HSC) 23, assigned to the Independence-variant littoral combat ship USS Jackson (LCS 6) and Naval Engineering Technology (NET) technicians perform ground turns on an MQ-8C Fire Scout on the flight deck of Jackson. U.S. NAVY / Mass Communication Specialist 3rd Class Andrew Langholf ARLINGTON, Va. – The newest version of the Navy's Fire Scout

UAV is being prepared for deployment to the Western Pacific, according to an official photograph.

An MQ-8C Fire Scout was depicted in a Dec. 22 official Navy photograph taken on the deck of Independence-class littoral combat ship USS Jackson (LCS 6) while in port in Apra Harbor, Guam. The caption stated the Jackson was part of Destroyer Squadron Seven "on a rotational deployment in the U.S. 7th Fleet area of operation to enhance interoperability with partners and serve as a ready-response force in support of a free and open Indo-Pacific region."

The MQ-8C in the photograph was going through predeployment functional ground checks for a detachment of Helicopter Sea Combat Squadron 23 – based at Naval Air Station North Island, California – that will operate the MQ-8C from the USS Jackson.

The MQ-8C, which achieved initial operational capability in June 2019, is an upgrade to the Fire Scout System mainly in that it uses a Bell 407 airframe, which is larger than the earlier-design MQ-8B's airframe and equipped with more powerful engines, thus having a greater payload and endurance, up to 12 hours on station.

The MQ-8C can carry the ZPY-8 search radar or an electrooptical/infrared sensor and uses the same ground control station and the MQ-8B. The Navy plans to add more capability in the form of Link 16 data link, passive targeting, and a mine-countermeasures payload.

Northrop Grumman was under contract to deliver 38 MQ-8Cs, all of which have been delivered. The company has delivered 30 of the earlier MQ-8B version.

Editor's note: This article has been updated and corrected from a previous version.

# USS Abraham Lincoln Deploys with First Marine Corps F-35C Squadron



An F-35C Lightning II, assigned to the "Black Knights" of Marine Fighter Attack Squadron (VMFA) 314, prepares to land on the flight deck of the aircraft carrier USS Abraham Lincoln (CVN 72). Abraham Lincoln is underway conducting routine operations in the U.S. 3rd Fleet. U.S. NAVY / Mass Communication Specialist 3rd Class Michael Singley SAN DIEGO – The USS Abraham Lincoln (CVN 72) departed on a regularly scheduled deployment Jan. 3 as the centerpiece of a carrier strike group that included the Marine Corps' first F-35C Lightning II squadron.

The Abraham Lincoln Carrier Strike Group (CSG) is led by the command staff of CSG 3 and consists of Nimitz-class aircraft carrier USS Abraham Lincoln (CVN 72), Carrier Air Wing Nine (CVW-9), the Ticonderoga-class guided-missile cruiser USS

Mobile Bay (CG 53), and the Arleigh Burke-class guided-missile destroyers of Destroyer Squadron 21 (DESRON 21) – USS Fitzgerald (DDG 62), USS Gridley (DDG 101), USS Sampson (DDG 102) and USS Spruance (DDG 111).

CVW-9 includes Marine Fighter Attack Squadron 314 (VMFA-314), the Corps' first F-35C squadron. The deployment marks the second carrier deployment of the F-35C.

The Marine Corps plans to field a total of four F-35C squadrons and have committed two of them to the Tactical Air Integration program of deploying with CVWs.

The USS Carl Vinson (CVN 70) currently is deployed to the Indo-Pacific region with the Navy's first fleet F-35C squadron, Strike Fighter Squadron 147 (VFA-147), on board.

CVW-9 also includes VFA-14, equipped with F/A-18F Super Hornet Strike Fighters; VFAs 14 and 151, equipped with F/A-18Es; Electronic Attack Squadron 133 (VAQ-133), with EA-18G Growler electronic attack aircraft; Airborne Command and Control Squadron 117 (VAW-117) with E-2D Advanced Hawkeye aircraft; Helicopter Sea Combat Squadron 14 (HSC-14) with MH-60S Seahawk helicopters; Helicopter Maritime Strike Squadron 71 (HSM-71) with MH-60R Seahawk helicopters; and a detachment of Fleet Logistics Multi-Mission Squadron 30 (VRM-30), equipped with the CMV-22B Osprey carrier-onboard delivery aircraft.

"The entire CSG 3 team is trained and ready to deter and, if necessary, win conflicts as called upon by our nation's leaders," said Rear Adm. J.T. Anderson, commander, Carrier Strike Group 3, in a release from U.S. 3rd Fleet. "As we leave today on this routine, scheduled deployment, I know the Sailors and Marines of this team will continue to serve this great nation and its people. It is our honor to do so."

### NAVSEA Orders Two More Mark VI Patrol Boats for Ukraine



A Mark VI is launched from the amphibious dock landing ship USS Ashland (LSD 48) in the Philippine Sea in February 2021. U.S. NAVY / Mass Communication Specialist 3rd Class Madysson Anne Ritter

ARLINGTON, Va. — The U.S. Navy has ordered two more Mark VI patrol boats for the government of Ukraine, the Defense Department said.

The Naval Sea Systems Command awarded SAFE Boats International of Bremerton, Washington, a \$25.6 million firm-fixed-price modification "for the exercise of options for construction, outfitting, reactivation, and training of two Mark VI patrol boats," the Dec. 30 announcement said.

The order is funded with some of the \$125 million Ukraine Security Assistance Initiative funds through the fiscal year 2021 Building Partner Capacity initiative.

In June 2020, the U.S. State Department has approved the possible foreign military sale of up to 16 Mark VI patrol boats and related equipment to Ukraine for an estimated cost of \$600 million, the Defense Security Cooperation Agency said. The December order brings the total ordered to date to 12 boats.

"This action reaffirms the U.S. commitment to providing defensive lethal weapons to enable Ukraine to more effectively defend itself against Russian aggression," the Defense Department said of an earlier sale of Mark VI boats to Ukraine.

The patrol boats will be operated by the Ukrainian navy to defend territorial waters and other maritime interests. They each will be armed with two MSI Seahawk A2 gun systems and two Mk44 cannons and equipped with electro-optical/infrared sensors and loud-speaker systems.

Mark VI patrol boats are used by the Navy Expeditionary Combat Command for escort of high-value ships, coastal patrol, and other maritime security missions.

The boats will be built in Tacoma, Washington, and deliveries are expected to be completed by March 2026.

### NAVSEA to Proceed with COBRA

# II Littoral Mine-Countermeasures System



COBRA Block II is planned for installation on MQ-8C Fire Scout unmanned aerial vehicles, such as the one shown here on littoral combat ship USS Jackson (LCS 6) in April, 2021. U.S. NAVY / Ens. Alexandra Green

ARLINGTON, Va. – Naval Sea Systems Command announced it intends to solicit bids for a contract to design, develop and build a Block II version of the Coastal Battlefield Reconnaissance and Analysis system.

The COBRA Block I is a mine- and obstacle-detection multispectral sensor that is a modular component of the mine warfare mission package for littoral combat ships. It is designed to detect mines from the beach through the surf zone. The COBRA is the intelligence, surveillance and reconnaissance technology component of the planned Assault Breaching System. In March 2009, COBRA Block I was rated mature enough to enter low-rate initial production. The COBRA was tested on an MQ-8B Fire Scout unmanned helicopter in October 2010. Initial operational capability was achieved in July 2017. Operational testing was completed in April 2018. The Block I was built by Arete Associates.

Block II, planned for installation on the MQ-8C Fire Scout unmanned helicopter, will add night operation capability and full-detection capability of mines in the surf zone out to 200 feet of water depth during a single pass with a high coverage rate.

The COBRA Block II system, when fully developed, will be a battlefield reconnaissance and analysis system designed to conduct aerial tactical reconnaissance in the littoral battlespace for the detection and localization of individual mine-like objects, minefields, minelines and obstacles in the surf zone and beach zone; for the detection and localization of surface and near-surface mine-like objects in very shallow water; and for the detection and localization of surface and near-surface mine-like objects, moored or drifting in shallow water through deep water in day or night, the NAVSEA announcement said.

NAVSEA anticipates the contract award will be for up to three engineering and manufacturing development models and up to five low-rate initial production units of the COBRA Block II.

NAVSEA anticipates releasing a request for proposals in the second quarter of fiscal 2022.

### Marine Corps to Cease Deployments, Water Ops of AAV7 Vehicles



An AAV7A1 assault amphibious vehicle conducts a wet-gap amphibious crossing as part of a company-sized infiltration on Camp Lejeune, North Carolina, Aug. 10, 2021. U.S. MARINE CORPS / Lance Cpl. Jacqueline C. Arre

ARLINGTON, Va. – The Marine Corps has decided to cease deploying AAV7 assault amphibious vehicles as well as operating them in water during exercises, the Corps said in a release.

The decision is a consequence of a fatal mishap on July 30, 2020, with the sinking of an AAV7 off California, resulting in the deaths of eight Marines and a Navy corpsman.

The AAV7, which entered service in 1972, is the prime amphibious vehicle of the Marine Corps. It has gone through upgrades since. It is being replaced by the Amphibious Combat Vehicle. The following statement was released by Maj. Jim Stenger, a Marine Corps spokesman:

"The Marine Corps stands by the efficacy of the recommendations that came from the multiple investigations into the AAV mishap from the summer of 2020, and with those recommendations implemented and sustained, the AAV is a safe and effective vehicle for amphibious operations.

"That said, given the current state of the amphibious vehicle program [the program that manages both AAVs and ACVs], the commandant of the Marine Corps has decided the AAV will no longer serve as part of regularly scheduled deployments or train in the water during military exercises; AAVs will only return to operating in the water if needed for crisis response. This decision was made in the interest of the longterm health of the amphibious vehicle programs and future capabilities. The AAV will continue to operate on land; 76% of its tasks are land-based. In doing so, we reserve the capability to reverse this decision should the need arise.

"The Marine Corps will continue deployments with myriad lethal capabilities which currently exist, and we remain committed to fielding the Amphibious Combat Vehicle.

"ACVs were temporarily suspended from open-ocean waterborne operations as we worked to solve an issue that was identified with the towing mechanism. We expect that issue to be resolved soon and for ACVs to return to the water early in the New Year."