## Navy Proposes Decommissioning 6th Fleet's Command Ship in 2026



The Egyptian navy frigate ENS Alexandria (F911) and the U.S. Navy amphibious command ship USS Mount Whitney (LCC 20) operate in the Red Sea in support of the newly established Combined Task Force 153, April 20. U.S. ARMY / Cpl. DeAndre Dawkins

ARLINGTON, Va. – The U.S. Navy has proposed in its 2023 budget to decommission the amphibious command ship USS Mount Whitney (LCC 20) during fiscal 2026.

The Mount Whitney has served as the flagship of the U.S. 6th Fleet since 2005, when it replaced the USS LaSalle (AGF 3).

The Navy is proposing the retirement of the Mount Whitney because its retirement "is mitigated by staff operating ashore," the service said in its 2023 budget highlights book,

citing a savings of \$179.7 million over the Future Years Defense Plan.

The 6th Fleet staff normally is stationed ashore in Naples, Italy. The Mount Whitney is homeported in nearby Gaeta.

The Mount Whitney is a Blue Ridge-class amphibious command ship. It was commissioned on Jan. 16, 1971, and served until 2005 as the flagship of the U.S. 2nd Fleet. It underwent conversion to a Military Sealift Command ship and is operated by a hybrid Navy/Civilian Mariner crew but remains a commissioned ship under the command of a Navy captain. If retired in 2026, the ship will have served 55 years.

Currently, the Mount Whitney is deployed to the Red Sea and Gulf of Aden where it serves as the flagship of commander, Task Force 153, a new task force of the Combined Maritime Forces, an international coalition operating under commander, U.S. 5th Fleet/Naval Forces Central Command.

# Teledyne FLIR Introduces Hadron 640R Dual Thermal-Visible Camera for Unmanned Systems

Teledyne FLIR's Hadron 640R radiometric thermal and visible dual camera module. *TELEDYNE FLIR* 

GOLETA, Calif. and ORLANDO, Fla. — Teledyne FLIR announced the release of its high-performance Hadron 640R combined radiometric thermal and visible dual camera module on April 25.

The Hadron 640R design is optimized for integration into unmanned aircraft systems, unmanned ground vehicles, robotic platforms and emerging AI-ready applications where battery life and run time are mission critical.

The 640 x 512 resolution Boson longwave infrared thermal

camera inside the Hadron 640R can see through total darkness, smoke, most fog, glare, and provide temperature measurements for every pixel in the scene. The addition of the high definition 64 MP visible camera enables the Hadron 640R to provide both thermal and visible imagery compatible with today's on-device processors for AI and machine-learning applications at the edge, the company said.

"The Hadron 640R provides integrators the opportunity to deploy a high-performance dual-camera module into a variety of unmanned form factors from UAS to UGV thanks to its incredibly small size, weight, and power requirement," said Michael Walters, vice president product management, Teledyne FLIR. "It is designed to maximize efficiency and its IP-54 rating protects the module from intrusion of dust and water from the outside environment."

The Hadron 640R reduces development costs and time-to-market for integrators and original equipment manufacturer product developers by offering a complete system through a single supplier, Teledyne FLIR. This includes offering drivers for market-leading processors from NVIDIA, Qualcomm, and more, plus industry-leading integration support and service from a support team of experts. It also offers flexible 60 Hz video output via USB or MIPI compatibility. Hadron 640R is a dual use product and is classified under U.S. Department of Commerce jurisdiction.

## Marine Corps Deploys G/ATOR Radar to Support NATO Air

## **Policing Missions**



U.S. Marines with the Early Warning Control Crew, radar technicians, install the arms of the Ground/Air Task Oriental Radar (G/ATOR) in 2015 at Cannon Air Defense Complex, Yuma, Arizona. U.S. MARINE CORPS / Cpl. Summer Dowding RAMSTEIN, Germany – The U.S. Marine Corps has deployed one of its units along with an AN/TPS-80 Ground/Air Task Oriented Radar (G/ATOR) to Lithuania for the first time to support NATO's enduring air policing mission, NATO's Allied Air Command Public Affairs Office said April 25.

This unit provides multi-domain command and control, air defense, air traffic control, radar surveillance and communications support. The G/ATOR allows Marines to conduct air surveillance and air domain awareness in support of NATO operations.

"This deployment highlights the expeditionary character of our

Marines and the command-and-control systems they employ such as the AN/TPS-80 G/ATOR," said Col. Michael McCarthy, commanding officer of the deployed unit. "With little notice and a light footprint we were able to seamlessly move from training in an arctic, maritime environment to the Baltics; reassuring allies and immediately contributing to USAFE [U.S. Air Forces Europe] and NATO operations."

The Marine Corps unit deployed in support of Norwegian led Exercise Cold Response 22 before repositioning to Lithuania. They are a command-and-control unit, which provides multidomain command and control, air defense, air traffic control, radar surveillance, and communications support. The AN/TPS-80 G/ATOR is the Marine Corps' newest medium range multi-role radar. The radar builds an airspace picture for controllers through active scanning.

# NSWC Dahlgren Engineers Develop Modernized Low-Cost Semi-Active Laser Seeker



From left to right, Naval Surface Warfare Center Dahlgren Division engineers Ryan Littleton and Michael

St. Vincent perform seeker calibration on the semi-active laser seeker they helped develop. The new SAL seeker is smaller and lower in cost than previous seekers and will be compatible with the future generations of guided munitions systems. U.S. NAVY

DAHLGREN, Va. – Engineers at NSWC Dahlgren Division have developed a new, lower-in-cost, semi-active laser (SAL) seeker, the division said April 25.

SAL seekers are a key enabling technology for guided munitions that allow warfighters to target stationary and moving targets in areas where GPS is unavailable. SAL seekers function in tandem with an operator that directs a pulsing, infrared laser at targets. The seeker, typically in the nose of laser-guided munitions, detects the laser energy reflecting off the target and guides the munition to the operator's mark with high precision. This partnership assures that the correct target is engaged.

The seeker developed by engineers at Dahlgren Division is

smaller, three to five times cheaper than comparable laser seekers and is based on modern electronics designs not only to ensure relevance, but also to improve performance and implement the next generation of signal processing and countermeasures. As precision weapons requirements continue to expand, the design is ready to support integration with imager systems. The upgraded terminal seekers will be instrumental in the development of future guided munition systems.

"In response to the shift in force design, warfighting function and the trends going forward, we're technologically pivoting to stay ahead of the game," said program manager for the Enhanced Expeditionary Engagement Capability program Luke Steelman.

Traditional SAL seeker systems use a gimbaled detector element to track the laser spot as it moves relative to the weapon. Engineers at Dahlgren were able to develop a new combination of fixed optics and software algorithms to replicate the capability without the need for those expensive and sensitive moving parts. This has not only led to a smaller and more cost-effective product, but also one that is instrumental in ensuring compatibility with the next generation of system currently under development.

What's more, the new seeker design also includes an integrated height-of-burst sensor that is able to measure proximity to the ground and signal the weapon's fuze to create a very precise airburst function without the need of an additional sensor on the guided munition, further saving space and reducing cost.

Dahlgren has produced more than 50 prototypes, 30 of which have been live-fire tested on multiple weapon systems – including the 81-mm Advanced Capability Extended Range Mortar – and successfully guided systems to stationary and moving targets. Michael St. Vincent, project lead engineer, said that direct feedback from warfighters was critical to the successful development process.

"We would get feedback from warfighters — what kind of targets they are targeting, what they are like, and also what requirements they need to meet," said St. Vincent. "If they needed more range or more field of view . . . we would do simulations and make some changes and new iterations that moved closer to what they want."

Dahlgren has long had a hand in terminal seeker technology, but in recent years the focus of the warfighting function has moved to exceedingly longer-range engagements. These longrange engagements keep warfighters and targeting assets far away from adversaries, but often preclude the use of laserguided munitions.

Despite increasing engagement distances, Steelman says that laser-guided munitions that use the SAL seeker will always be a mainstay in warfighters' toolboxes for one reason: target assurance.

"If the operator is putting a dot on a target, he is telling me 'this is your target, not the one to the left, not the one to the right, that one,'" St. Vincent noted. "Laser guidance will always provide that 99.99-percent assurance that a specific truck or boat is your target."

#### USS Donald Cook Returns to

#### Mayport after Surge Deployment



The Arleigh Burke-class guided-missile destroyer USS Donald Cook (DDG 75) arrives at Naval Station Norfolk, April 13. U.S. NAVY / Mass Communication Specialist Mass Communication Specialist 1st Class Jacob Milham JACKSONVILLE, Fla. — The Arleigh Burke-class guided-missile

destroyer USS Donald Cook (DDG 75) returned to Naval Station Mayport following a three-month deployment, April 24, the U.S.  $2^{nd}$  Fleet said in an April 25 release.

Donald Cook departed Naval Station Mayport in January on a short-notice deployment to operate with NATO Allies and partners in the Eastern Atlantic, North Sea and Baltic Sea.

The crew spent more than 70 days at sea and conducted three port visits in support of maritime security partnerships in

Copenhagen, Denmark; Rostock, Germany; and the Isle of Portland, England.

"Visiting other counties as a representative of the United States is surreal," said Fire Controlman (Aegis) 2nd Class Brady Itkin. "People told us how nice Americans are everywhere we went, and we were shown amazing hospitality by the civilians of other NATO countries. There's no better feeling than making a positive impact on other people's perspective of America."

The ship received warfare excellence awards in communications, engineering and ship safety while underway.

"The crew put in a lot of hard work over the past year," said Ensign Benjamin Steen, electronic warfare officer aboard Donald Cook. "This recognition is definitely a testament to all of our efforts."

While deployed, Donald Cook participated in NATO Exercise Dynamic Guard 2022 in the North Sea. Dynamic Guard, hosted by Norway, is a biannual, multinational electronic warfare exercise series designed to provide tactical training for the NATO Response Force and NATO national units. For the first time in three years, two U.S. vessels participated to further enhance the ongoing cooperation, strength and interoperability between NATO Allies.

"The crew demonstrated their tenacity by executing multinational exercises and national tasking on short notice during this surge deployment," said Cmdr. Matt Curnen, commanding officer of Donald Cook. "Our operations over the past few months have demonstrated our proficiency and capability as well as reaffirming our commitment to the NATO Alliance. I could not be more proud of the resiliency and professionalism the crew displayed during this deployment." Donald Cook is scheduled to start a major maintenance availability, its first since returning from their former homeport of Rota, Spain, in June.

# Philly Shipyard Awarded Contract for Fifth NSMV



An artist's conception of the purpose-built National Security Multi-Mission Vessel, to which the Maritime Administration (MARAD) wants to transition to replace obsolete training ships. *MARAD* PHILADELPHIA – Philly Shipyard Inc. will build one additional National Security Multi-Mission Vessel, or NSMV, the fifth and

final in the training ship series.

The vessel, built under an order from TOTE Services as authorized by the Maritime Administration, will replace the aging training vessel at California State University Maritime Academy in Vallejo, California. Construction of the new vessel, NSMV 5, is expected to commence in 2023. The contractual delivery date for NSMV 5 is 2026.

The order was placed under the April 2020 contract with TOTE Services, which allows for the construction of up to five NSMVs. The initial award included the first two vessels in the NSMV program, NSMVs 1 and 2. The next two vessels in the NSMV program, NSMVs 3 and 4, were ordered in January 2021.

The award for NSMV 5 is valued at approximately \$300 million, bringing the total order intake under the contract for the five-ship program to be approximately \$1.5 billion.

As announced in November 2021, Philly Shipyard's order backlog also includes a contract from Great Lakes Dredge & Dock Co. to construct one Jones Act-compliant Subsea Rock Installation Vessel, with a contract value of approximately \$200 million. The SRIV will be constructed in between NSMVs 4 and 5.

"It is truly a great day for Philly Shipyard as we are now responsible for building the complete series of the NSMV program – a physical symbol of MARAD's investment in the future of maritime education and training," said Steinar Nerbovik, president and CEO of Philly Shipyard. "The NSMV program continues to mark a turning point in our company's transformation to serve both commercial and government markets."

#### Future APL 69 Conducts

## Builder's and Acceptance Trials



The Navy's newest berthing barge, APL 69, recently conducted builder's and acceptance trials in Pascagoula, Mississippi. This is a file photo of APL 67. U.S. NAVY WASHINGTON – The Navy's newest berthing barge, Auxiliary Personnel Lighter (APL) 69, recently conducted builder's and acceptance trials in Pascagoula, Mississippi, Team Ships Public Affairs said in a release.

Builder's trials consist of a series of in-port tests and demonstrations that allow the shipbuilder, VT Halter Marine, and the Navy to assess the craft's systems to ensure installation in accordance with the original equipment manufacturer's guidelines and that the craft design and configuration meet the contract requirements. Acceptance trials consist of integrated testing to demonstrate the capability of the platform and installed systems across all mission areas to effectively meet its requirements. These tests and demonstrations are witnessed by the Navy's Board of Inspection and Survey and are used to validate the quality of construction and compliance with specifications prior to delivery to the Navy.

"These vessels improve quality of life for our Sailors during ship maintenance availabilities and inter-deployment training cycles," said Capt. Eric Felder, program manager for U.S. Navy and Foreign Military Sales Boats and Craft, Program Executive Office Ships. "We look forward to delivering more of these vessels to the fleet to provide the necessary berthing, messing, administrative, and leisure facilities to crews while their ships are undergoing maintenance."

APLs are 82-meter-long barges that can berth up to 609 people – 72 officers and 537 enlisted personnel. Mess seating is available for 224 enlisted personnel, 28 chief petty officers and 28 officers in 20-minute intervals, allowing food service for 1,176 personnel with three meals a day.

APLs are used to house duty crews while ships are in maintenance availabilities and can be towed to new bases or shipyards to support changing fleet requirements. Additionally, they offer the potential use for humanitarian missions and other temporary assignments. APLs are equipped with offices, classrooms, washrooms, laundry facilities, a medical treatment facility, a barber shop and a fitness center.

VT Halter Marine is currently in production of two additional APLs.

## Marine Corps to Use Leased Ships to Test Light Amphibious Warfare Ship Concept



U.S. Military Sealift command's Spearhead-class expeditionary fast transport ship, City of Bismarck, floats while docked at the Commercial Seaport of Palau in Koror, Republic of Palau, Nov. 5, 2021. Spearhead-class ships may be used to test the concept for a light amphibious warfare ship. U.S. MARINE CORPS / Cpl. Atticus Martinez

ARLINGTON, Va. — The Marine Corps plans to lease two commercial ships over the next two years to experiment with the light amphibious warfare ship concept, also now being classed as the landing ship-medium.

Brig. Gen. Mark Clingan, assistant deputy commandant for Combat Development and Integration and deputy commanding general of Marine Corps Combat Development Command, speaking April 21 in a webinar of the National Defense Industrial Association, said the Corps was planning to lease a commercial "stern[-ramp] landing vessel" by late summer or early fall [2022]" to use to test the LAW/LSM concept.

Clingan said a second vessel would be leased in fiscal 2023 for the same purpose.

The general said the Corps also was looking at using Spearhead-class expeditionary fast ships — which do not have beach landing ramps — and utility landing craft — which do — as part of the concept experimentation.

The LAW will be designed to carry 75 Marines of a Marine Littoral Regiment and land them on a shore in support of distributed maritime operations and expeditionary base operations. Clingan said the ships would be able to operate within the weapons engagement zone and be less attractive targets for enemy missiles than would a larger amphibious warfare ship.

Clingan said that with each Marine Littoral Regiment comprised of nine platoons or units of action — one on each light amphibious warfare ship — 27 LAWs would be needed to support the three MLRs. Counting extra MLRs in the maintenance pipeline, the Corps lists 35 LAWs as its probable requirement.

The Navy plans to procure the light amphibious warfare ship beginning in fiscal 2025.

## Marine Corps May Keep More Tube Artillery, Osprey Squadrons in Force Design 2030



An MV-22 Osprey aircraft, assigned to Marine Medium Tiltrotor Squadron 166 (Reinforced), departs the flight deck of amphibious assault ship USS Boxer (LHD 4) in 2016. U.S. NAVY / Mass Communication Specialist 2nd Class Jose Jaen ARLINGTON, Va. – The Marine Corps continues to tweak its Force Design 2030, adjusting the number of tube artillery batteries, the number of MV-22B squadrons, the operation of a Marine Littoral Regiment and the size of an infantry battalion.

Under Force Design 2030, the Marine Corps is divesting itself of some force structure and weapon systems and building others to reshape the Corps to be more capable of operating inside a threat zone in the current era of great power competition. Brig. Gen. Mark Clingan, assistant deputy commandant for Combat Development and Integration and deputy commanding general of Marine Corps Combat Development Command, speaking April 21 in a webinar of the National Defense Industrial Association, said the Corps is looking at retaining more tube artillery batteries, choosing to retain seven batteries instead of five.

The tube artillery batteries operate M777 155mm howitzers.

Clingan also said the Corps will continue to field 16 Marine Medium Tilt-rotor Squadrons rather than reduce to 14 squadrons. However, the number of MV-22B Osprey aircraft in each squadron would decrease from 12 to 10 aircraft. One squadron, VMM-166, was deactivated last year.

He said the Corps' force design plans "probably weighted too much on the Marine Littoral Regiment and did not really acknowledge that to appropriately be able do the recon/counter-recon fight is going to require the full complement and scope of the Marine Air-Ground Task Force, and so MLRs are singular units but are still going to be very much a part of reaching back and employing the resources of the entire MAGTF.

Regarding the design of the MLR, Clingan said, "we probably focused too much on lethality without taking enough look or considering specifically the requirement to 'sense and make sense,' the mobility and maneuverability and also the need for deception. Now we're making refinements to that as well.

"Our initial thoughts were that MLR units would be sourced through UDP [the Unit Deployment Plan] rotation and now we're opening the aperture and think, maybe, some PCS [permanent change of station] personnel may be more suited to the terms of the units," he said.

The Corps has one MLR on strength, the 3rd MLR. Two more MLRs are planned in the future: the 12th and probably the 4th.

Regarding the size of an infantry battalion, "we initially thought we would be cutting that from about 896 [Marines and Sailors] down to 735," he said. Noting the need to make the battalions more "robust and capable," the number of personnel in a battalion "probably need to hover around numbers about 800-835 to have the capabilities it needs."

## Coast Guard Commissions 47th Sentinel-Class Fast Response Cutter



The commissioning crew of the USCGC Clarence Sutphin Jr. (WPC 1147), Patrol Forces Southwest Asia's sixth 154-foot Sentinelclass cutter, stand at attention as the ship is placed into service at a ceremony held at the Intrepid Sea, Air and Space Museum in New York City, April 21. U.S. COAST GUARD / Petty Officer 3rd Class Ryan Schultz PORTSMOUTH, Va. – The U.S. Coast Guard commissioned the USCGC Clarence Sutphin Jr. (WPC 1147), Patrol Forces Southwest Asia's sixth 154-foot Sentinel-class cutter, into service at the Intrepid Sea, Air and Space Museum in New York City on April 21, the Coast Guard Atlantic Area said in a release.

Vice Adm. Steven Poulin, U.S. Coast Guard Atlantic Area commander, presided over the ceremony.

The cutter's namesake is Boatswain's Mate 1st Class Clarence Sutphin Jr., a New York native who served in the U.S. Coast Guard from 1941 to 1945. During this time, Sutphin served as landing craft coxswain on board the attack transport USS Leonard Wood (APA 12), a landing craft supporting our troops in North Africa and Sicily.

In November 1941, just weeks before the Japanese attack on Pearl Harbor, 18-year-old Sutphin enlisted in the United States Coast Guard. After enlisting, Sutphin attended boot camp at the Coast Guard Yard near Baltimore. He then received orders to the North Carolina coast to train in amphibious operations and landing craft, also known as Higgins Boats, landing troops in North Africa and Sicily.

When that operation was complete, the boat transited to the Pacific theater. During the Battle of Saipan in 1944, Sutphin helped oversee boat operations, including landing, loading, and salvaging landing craft as the USS Leonard Wood endured the heavy fire. During the conflict, he repeatedly risked his life to save others. He swam a towline to a landing craft stranded on a reef, saved another boat stuck on the beach under enemy fire, and came to the aid of eight Marines who a mortar round had struck. He provided first aid to the survivors and evacuated them to the nearest aid station.

Sutphin stayed aboard the Leonard Wood through May 1945 and

participated in its eight primary amphibious operations. Sutphin was awarded the Bronze Star Medal for his "exceptional bravery under fire" during the Battle of Saipan.

The Clarence Sutphin Jr. was officially delivered to the U.S. Coast Guard on Jan. 6 in Key West, Florida. It is the 47th Sentinel-class fast response cutter. While the ship is commissioning in New York City, it will be homeport in Manama, Bahrain, part of U.S. Coast Guard Patrol Forces Southwest Asia.