

# National Museum of the Surface Navy Selects Applied Minds LLC for Phase 1 Design



U.S. Marines with the Assault Amphibian School listen to David Ashman, a tour guide with the USS Iowa museum, during a tour of the museum at the Port of Los Angeles, San Pedro, California, July 22. *U.S. MARINE CORPS / Lance Cpl. Hope Straley*

SAN PEDRO, Calif. – The National Museum of the Surface Navy at the Battleship Iowa, the museum for America’s Surface Navy located aboard the historic Battleship USS Iowa Museum, announced Aug. 1 the selection of Applied Minds LLC as designer for the first phase of the innovative museum.

Scheduled to open in 2025, the National Museum of the Surface Navy will be designed to raise awareness of the America’s Surface Navy and its past, present, and future roles in

maintaining freedom of the seas.

Led by Bran Ferren, formerly of Disney Imagineering, the team from Applied Minds will incorporate the historic Battleship USS Iowa as the platform for a unique, immersive experience. The team will be responsible for designing exhibits and experiences that educate visitors of the Surface Navy's role in maintaining safe and open sea lanes to ensure that our nation remains strong economically.

"The activation of the Iowa as the nation's first and only national museum dedicated to the men and women of the Surface Navy poses challenges from the standpoints of both creativity and technology," said retired Navy Rear Adm. Mike Shatynski, chairman of the board of the National Museum of the Surface Navy. "Retaining Applied Minds gives us a highly experienced team of creative and innovative professionals that is uniquely qualified and credentialed to design the world-class experience that our visitors will demand, and that the former, current and future Sailors of the Surface Navy deserve."

"The vision for the nation's first museum dedicated to America's Surface Navy is both exciting and forward-thinking, and we're thrilled to have been selected as the team to bring those ideas, concepts, and dreams to life," said Steven Hubrechts, chief of staff at Applied Minds. "Bringing together the extensive and proven experience in creativity and technology design at Applied Minds with the museum's visionary team will undoubtedly result in the development of a world-class museum that will become the standard for the next evolution in museums."

In addition to the phase one design project to be undertaken by Applied Minds, space preparation and infrastructure improvements for the museum are already underway aboard Battleship USS Iowa Museum thanks to the generous donations of seed donors.

For additional information about the National Museum of the Surface Navy and to become a Plank Owner, visit the website at <https://surfacenavymuseum.org>.

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# Royal Navy's New Ship Will be an Autonomy and Lethality Accelerator



The U.K. Royal Navy's experimental vessel XV Patrick Blackett.  
*U.K. ROYAL NAVY*

PORTSMOUTH, UK – The Royal Navy welcomed the experimental vessel XV Patrick Blackett (X01) on July 29 in a ceremony at Portsmouth, United Kingdom.

The Royal Navy refers to the new ship, which has the hull

number X01, as an “autonomy and lethality accelerator” and a “maritime sandbox,” dedicated to exploring and demonstrating new, innovative technology at sea.

The ship, designed as an offshore support vessel, was acquired from the Dutch shipbuilder Damen and optimized for Royal Navy use. Its inherent modularity allows various systems and capabilities to be installed in the Royal Navy’s PODS (Persistently Operationally Deployed Systems), or secured on deck, and plugged in to the ship’s network to be evaluated.

The 135-foot ship will have a top speed of about 20 knots and have a crew of five. It is not expected to be operated autonomously without a crew.

The ship’s namesake, physicist Patrick Blackett, served in the Royal Navy in WW I and later made groundbreaking contributions during WW II in the field of operational research. He won a Nobel Prize for his work in 1948.

The vessel will be operated as part of the Royal Navy’s “NavyX” organization, which, according to its website, “rapidly develops, tests and trials cutting-edge equipment, with the aim of getting new technology off the drawing board and into the hands of our people on operations at a pace. Operating across all maritime environments – over water, on water, underwater and the littoral. By empowering a team with diverse experience, NavyX will exponentially accelerate our speed of learning and our capacity to procure and integrate these best-in-class technologies.”

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# Hospital Ship USNS Comfort to Deploy to Southern Command Region



The Military Sealift Command hospital ship USNS Comfort (T-AH 20) sails off the coast of Puerto Rico to provide humanitarian relief in this 2017 photo. *U.S. NAVY / Mass Communication Specialist 1st Class Ernest R. Scott*

ARLINGTON, Va. – The Defense Department will deploy a hospital ship to the U.S. Southern Command region during the fall of 2022, the department said.

“The Department of Defense plans to deploy the United States Naval Ship Comfort, a Mercy-class hospital ship, to conduct medical assistance in support of regional partners in the fall of 2022,” the release said. “During each port visit, the USNS Comfort typically provides medical assistance to about 3,500-8,000 people.”

The initiative is one of several the department announced in the wake of the XV Conference of Defense Ministers of the Americas (CDMA), which convened on July 25-29, 2022, in Brasilia, Brazil.

“CDMA is the premier hemispheric defense ministerial for strategic-level engagement with the top defense officials of the Americas, and convenes every two years,” the release said.

The USNS Comfort, one of two hospital ships operated by the Military Sealift Command, last visited the region in 2019, prior to the outbreak of the COVID-19 pandemic. It provided medical care in 12 nations in Central America, South America, and the Caribbean.

“The Department of Defense is committed to its role as the most trusted defense ally and partner for its neighbors to the north and south, building on its longstanding cooperation across a range of areas to foster mutual security throughout the Western Hemisphere,” the department said.

The Comfort’s sister ship, USNS Mercy, currently is deployed to the Western Pacific region as a participant in the Pacific Partnership humanitarian assistance effort.

The U.S. Navy is procuring medical versions of the Austal-built expeditionary fast transport ship to provide medical care for military operations and humanitarian care and disaster relief.

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# Four Unmanned Surface Vessels Being Demonstrated in RIMPAC



The large unmanned surface vessel Ranger transits the Pacific Ocean to participate in Exercise Rim of the Pacific (RIMPAC) 2022. *U.S. NAVY / Mass Communication Specialist 1st Class Tyler R. Fraser*

WASHINGTON, D.C. – Four prototype unmanned surface vessels are participating in the Rim of the Pacific 2022 exercise, known as RIMPAC, delivering warfighting capabilities and extending the reach of the manned U.S. fleet with fewer risks to the warfighter, Program Executive Office Unmanned and Small Combatants Public Affairs said July 22.

Though unmanned systems have participated in exercises before, the involvement of four different vehicles, operating both autonomously and by manned teams, is a major milestone.

The vessels – Seahawk, Sea Hunter, Nomad and Ranger – will execute a range of missions. The prototypes will work side-by-side with exercise participants, carrying payloads, providing intelligence, and most significantly, gathering data in a real-world environment to determine how they will function in the larger fleet.

The significance of the occasion is not lost on Navy Capt. Scot Searles, program manager of the Unmanned Maritime Systems (PMS 406) program office.

“The integration of autonomous USVs with manned combatants will give fleet commanders much-needed enhancements to maritime domain awareness, thereby increasing decision speed and lethality in surface warfare.” Searles said.

PMS 406, the office responsible for the participating RIMPAC prototypes, is a program office within the Program Executive Office, Unmanned and Small Combatants.

“While our prototyping efforts have grown and matured significantly in the last four years, their performance in the RIMPAC exercise marks another significant milestone in manned-unmanned teams.” Searles said.

The manned-unmanned team, in the case of RIMPAC, will include service members and civilians supporting the mission from various organizations all over the country.

The PMS 406 assets participating in RIMPAC are the Overlord unmanned surface vehicles, Nomad and Ranger, and the medium unmanned surface vehicles, Sea Hunter and Seahawk. Though primarily operated and maintained under the control of PMS 406, personnel from Unmanned Surface Vessel Division One within Surface Development Squadron One control much of the practical execution.

RIMPAC is the largest joint maritime exercise in the world. Lasting over five weeks and spanning massive areas in the

Pacific Ocean, the exercise will include hundreds of ships, submarines and aircraft, along with over 25,000 personnel.

Brian Fitzpatrick, PMS 406 principal assistant program manager for unmanned surface vessels, said, "RIMPAC is an incredible opportunity to not only show that we can develop these vessels, but we're also showing the Navy's commitment to unmanned and manned teams."

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## **Navy F/A-18 Launches AARGM-ER for Third Live-Fire Test**



Northrop Grumman's Advanced Anti-Radiation Guided Missile Extended Range (AARGM-ER) is launched from a U.S. Navy F/A-18 Super Hornet. *U.S. NAVY*

LOS ANGELES – Northrop Grumman Corp. successfully completed

the third live fire test of its AGM-88G Advanced Anti-Radiation Guided Missile Extended Range (AARGM-ER), the company said July 21.

The U.S. Navy launched the missile from an F/A-18 Super Hornet aircraft recently at the Point Mugu Sea Range off the coast of California. Utilizing its advanced emitter acquisition system, the missile detected a land-based threat and engaged the threat system.

“The Navy requirement for AARGM-ER is now,” said Captain A.C. Dutko, Navy program manager for Direct and Time Sensitive Strike (PMA-242). “AARGM-ER performed as expected and detected, identified, located and engaged a land-based air defense radar system. The continued success of our developmental testing moves the program closer to fielding and providing the aircrews with the protection they need to remain ahead of adversary threats.”

Since achieving a Milestone C Decision in September 2021, AARGM-ER prime contractor Northrop Grumman has continued to lead its industry team in timely development of critically needed warfighting capability. LRIP Lot 1 AARGM-ER missiles are currently in-production to support initial operational capability fielding. LRIP Lot 2 missiles, under contract, will further augment the inventory in the fleet.

AARGM-ER is being integrated on the Navy F/A-18E/F Super Hornet and EA-18G Growler aircraft as well as the F-35 aircraft.

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# State Dept. Approves Possible Sale of JASSM-ER Missiles to Australia



Maj. Jacob Rohrbach, a pilot assigned to the 40th Flight Test Squadron at Eglin Air Force Base, Florida, releases the first Joint Air-to-Surface Standoff Missile – Extended Range from an F-16 over the Gulf of Mexico on Sept. 19, 2018. *U.S. AIR FORCE / Master Sgt. Michael Jackson*

WASHINGTON – The State Department has approved a possible Foreign Military Sale to the government of Australia of Joint Air-to-Surface Standoff Missiles – Extended Range (JASSM ER) and related equipment for an estimated cost of \$235 million, the Defense Security Cooperation Agency said July 21.

Australia has requested 80 JASSM ERs (AGM-158B with telemetry kits and/or AGM-158B-2 configurations).

“Also included are missile containers and support equipment; JASSM training missiles; weapon system support; spare parts, consumables, accessories, and repair/return support;

integration and test support and equipment; personnel training; software delivery and support; classified and unclassified publications and technical documentation; transportation; U.S. government and contractor engineering, technical and logistics support services, studies and surveys; and other related elements of logistical and program support," the release said.

"The proposed sale will improve Australia's capability to meet current and future threats by providing advanced, long-range strike systems for employment from Royal Australian Air Force air platforms including, but not limited to, the F/A-18F Super Hornet and F-35A Lightning II," the announcement said.

The principal contractor will be Lockheed Martin, Orlando, Florida.

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## **New Zealand's First Boeing P-8A Poseidon Rolls Out of Paint Shop**



Boeing debuted the first P-8A Poseidon aircraft for New Zealand on July 21. *BOEING*

RENTON, Wash. – Boeing debuted on July 21 the first P-8A Poseidon aircraft for New Zealand in its Royal New Zealand Air Force livery, the company said in a release. New Zealand is one of eight nations to have acquired the P-8 as their new multi-mission maritime patrol aircraft.

“The aircraft features the iconic Kiwi roundel, a native bird to New Zealand,” said Sheena Vince Cruz, Boeing P-8 Asia-Pacific region program manager. “Although flightless, the Kiwi bird is recognizable and will continue ‘flying’ as a symbol on the P-8A for decades to come.”

The New Zealand government purchased four Boeing P-8A Poseidon maritime patrol and reconnaissance aircraft that will eventually replace the current fleet of six aging P-3K2 Orion aircraft. The P-8As will provide advanced capabilities to maintain situational awareness in neighboring waters on and below the surface of the ocean.

First flight is scheduled in the coming weeks followed by mission systems installation. The aircraft is scheduled to be delivered to the New Zealand Ministry of Defence later this year.

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## MARTAC Demonstrates Surveillance Potential of USVs for U.S. Navy



A Maritime Tactical Systems unmanned surface vessel used in Autonomous Warrior 22 in Australia. *MARTAC*

ARLINGTON, Va. – A family of high-speed unmanned surface vehicles has been getting a lot of play in naval exercises over the last year, helping the U.S. Navy to determine future requirements for USVs in roles such as maritime domain awareness.

Maritime Tactical Systems (MARTAC) operates a fleet of USVs the Navy has used in experimentation in such areas as the U.S. Naval Forces Central Command region and Australia.

The MARTAC USVs are contractor-owned and contractor operated. The small, fast craft can be operated in any weather. They are equipped with a forward-looking infrared sensor and can be fitted with various other sensors as the mission demands, such as signals intelligence sensors and sonars.

The missions being performed this summer require the MARTAC craft to be “a remote surveillance platform that can get places quickly and hang out for extended periods of time with high-res cameras,” said Bruce Hanson, CEO of MARTAC, a company based in Melbourne, Florida.

Hanson told *Seapower* that MARTAC’s USV’s participated in several demonstrations in International Maritime Exercise 22 under the control of Task Force 59, the U.S. 5th Fleet’s task force for experimentation of unmanned systems. The USVs also participated in Autonomous Warrior 22 in Australia.

“We’re too small, too dumb to realize what we can’t do, so we did a lot of stuff that people said we really couldn’t do, then we’re pretty successful at it, so some people are going to realize that these things operate pretty well,” Hanson said. “There are no going to replace people, but they are going to augment and enhance capabilities by a lot.”

Hanson said the company’s Devil Ray USV has extended persistence and would be a good partner with Saildrone’s USVs, which also have operated with Task Force 59. With its high speed, the Devil Ray can intercept a contact detected by a Saildrone.

The Devil Ray “can also protect the Saildrone,” Hanson said. “We can do things like picket lines ... [and] non-lethal interdiction.”

He said the ranges on MARTAC's USVs is greater than 1,000 nautical miles. MARTAC has sent its USVs, which are designed to be autonomous but can be optionally manned, on autonomous runs from Florida to the Bahamas and back.

The USVs can be shut down remotely and reactivated on command. Hanson said during Autonomous Warrior the company demonstrated the autonomous "launch and recovery of a T-12 USV off of the back of a T-38 USV." He said the boats work very well in swarms or groups.

MARTACs family of USVs include the man-portable Manta series – 12 feet or less – which are battery and solar electric-powered. The Devil Ray series is 24+ feet long and can be diesel-or gasoline-powered. The company is working on hybrid versions, including fuel cells for power, which give exceptional range.

The various MARTAC craft have a high degree of component interchangeability, Hanson said. They are payload agnostic. They can be operated by different control systems with the flick of a switch, enabling the same craft to be operated by different nation's navies.

Hanson said the MARTAC USVs will be participating in future large-scale exercises, including one in 2023.

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**HII Positions Senior Team to  
Accelerate Newport News**

# Shipbuilding Transformation and Execution



Newport News Shipbuilding's Needy, Caccavale and Glass. *HII* NEWPORT NEWS, Va. – HII's Newport News Shipbuilding division announced July 20 several promotions designed to optimize its shipyard operations and accelerate execution.

"We have been on an aggressive journey to transform the way we run our business. Accomplishing this transformation while running our complex business is not a simple task," said Jennifer Boykin, president of Newport News Shipbuilding. "Our Navy customer expects us to deliver ships on time and on budget so they can meet the evolving demands of the global security environment. Our ultimate success depends on the acceleration of these efforts led by experienced leaders."

Boykin announced several leadership changes, effective immediately.

Matt Needy moves to vice president and chief transformation officer, from vice president of Navy programs. In this new position, the 34-year shipyard veteran is responsible for the overall Newport News strategy execution, advanced development

of business growth, including the next-generation attack submarine SSN(X), enterprise-wide continuous improvement, overall operational health and risk-opportunity management.

With Needy's transition, Bryan Caccavale moves to vice president of Navy programs, from vice president of material and manufacturing. In this role, Caccavale's diverse leadership and strong financial experience will benefit program execution and financial performance of the ships built and maintained by Newport News.

Additionally, the material and manufacturing parts of Newport News are being restructured back into two stand-alone divisions. Julia Jones remains vice president of manufacturing, while Cullen Glass, director of supply chain procurement, moves to vice president of supply chain management. In this role, Glass is responsible for all procurement, outsourcing and material logistics functions across Newport News.

These leadership changes build on a multi-year shipyard modernization effort to enable safe and efficient delivery of the highest quality aircraft carriers and submarines, the company said. The modernization effort, including the shipyard's Integrated Digital Shipbuilding program, has been instrumental in recent completion of the first USS Gerald R. Ford (CVN 78) planned incremental availability, launch of Virginia-class submarine New Jersey (SSN 796) and construction of the first digitally designed and built Ford-class carrier Enterprise (CVN 80).

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# Boeing F/A-18 Super Hornet Successfully Completes Operational Demonstrations in India



Boeing's F/A-18 Super Hornet successfully completed operational demonstration tests at Indian Naval Station Hansa in Goa, India. *INDIAN NAVY*

GOA, India – Boeing's F/A-18 Super Hornet successfully completed operational demonstration tests at Indian Naval Station Hansa in Goa, India, reinforcing the Super Hornet's ability to effectively and safely operate off Indian Navy carriers, the company said July 20.

Two U.S. Navy F/A-18E Super Hornets completed multiple ski-

jumps, roll-in and fly-in arrestments, as well as performance flights, in a variety of weights in the air-to-air, air-to-ground, and air-to-surface configurations, meeting the Indian navy test requirements.

“The Boeing team was privileged to showcase the F/A-18 Super Hornet’s compatibility with Indian carriers in Goa,” said Alain Garcia, vice president, India business development for Boeing Defense, Space & Security and Boeing Global Services. “As the most advanced frontline multi-role naval fighter, the F/A-18 Super Hornet is one of the world’s most proven and affordable multi-role fighters and continues to evolve with the development of the next-generation Block III capability which will be game-changing for India.”

“With the Super Hornet Block III, the Indian navy would not only get the most advanced platform but would also benefit from tactics, upgrades and knowledge related to the naval aviation ecosystem that the U.S. Navy offers,” he added.

The tests followed eight ski-jumps in various weights and configurations during previous tests held at Naval Air Station Patuxent River in Maryland in late 2020 that demonstrated the Super Hornet’s ability to operate from a short-takeoff-but-arrested-recovery aircraft carrier.