Navy Awards Austal USA $44M to Develop Autonomous Capability in EPF 13

USNS YUMA (T-EPF 8) moors pierside Durres, Albania to assist JLOTS-21 in intra-theater lift capabilities. Austal USA has been awarded $44 million to build T-EPF 13, the future USNS Apalachicola. *U.S. MILITARY SEALIFT COMMAND*

HENDERSON, Western Australia – Austal Ltd. announced June 8 that Austal USA has been awarded a $44 million fixed-price, undefinitized contract modification for the design, procurement, production implementation and demonstration of autonomous capability on Expeditionary Fast Transport (EPF) 13, USNS Apalachicola.

Austal USA is constructing 15 Spearhead-class EPF vessels for the U.S. Navy and has delivered twelve EPFs since December 2012. EPF 13 is currently under construction at Austal USA's Mobile, Alabama shipyard.

Austal Limited Chief Executive Officer Paddy Gregg said the highly anticipated contract was another significant, strategic step towards greater autonomous vessel capability.

"Austal noted in our half year results presentation that the funding for an autonomous EPF conversion contract had been appropriated in the USA government 2021 budget, so we are pleased that it has now been converted into a formal contract," Gregg said. "Winning a $44 million contract is welcome from a revenue perspective, but strategically this contract award is even more significant for Austal.

"Autonomous vessel capability has been identified as an area of strategic importance by the U.S. Navy, so it is promising for Austal that the U.S. Navy has awarded Austal USA a

contract for the design, procurement, production implementation and demonstration of autonomous capability of one of our vessels, the Expeditionary Fast Transport (EPF) 13, the future USNS Apalachicola," he said.

The Spearhead-class EPF is a 103-meter high-speed aluminum catamaran with a large, 1,800 square meter cargo deck, medium-lift helicopter deck and seating for more than 300 embarked troops; providing a fast, high-payload transport capability to combatant commanders around the world.

The Austal-designed and built EPFs support a wide range of missions, from maritime security operations to humanitarian aid and disaster relief.

Two EPF's are currently under construction at Austal USA's shipyard, the USNS Apalachicola (EPF 13) and the USNS Cody (EPF 14).

In addition to the EPF program, Austal USA is contracted to deliver 19 Independence-class littoral combat ships (LCS) for the Navy, of which 13 have been delivered since 2010. The 15th Independence-class LCS, the future USS Canberra, was christened at Austal USA on June 5.

General Dynamics Mission Systems to Build Containers for LCS

Independence-variant littoral combat ship USS Omaha (LCS 12) sails in the Pacific Ocean, May 16. *U.S. NAVY / Ensign Alexandra Green*

Marion, Va. – General Dynamics Mission Systems was awarded a multi-million-dollar firm fixed-price contract from Northrop Grumman to provide Reduced Weight Basic Operating Assembly (RWBOA) containers for U.S. Navy littoral combat ships (LCS), the company said in a release. The containers, developed specifically for the Navy, will be produced at General Dynamics' Marion, Virginia facility, with first delivery expected in December.

RWBOA containers are lighter than standard 20-foot shipping containers but offer the same strength and durability. The containers will be used aboard LCS to house modular mission packages that equip the ship with specific mission capabilities needed to perform mine countermeasures, surface warfare or anti-submarine operations.

"The new Reduced Weight Basic Operating Assembly containers are a great example of how we have been able to leverage our expertise designing tactical shelters for the Army and tailor a solution that meets the specific needs of the Navy," said John Schulz, director of Structures at General Dynamics Mission Systems.

"The new containers are extremely lightweight and will provide the Navy with enhanced corrosion protection in comparison to conventional steel container designs. The use of Reduced Weight Basic Operating Assembly containers provides the Navy with the essential flexibility and mobility they need to quickly transport and deploy the capabilities to support their missions while at sea."

Curtiss-Wright to Upgrade Navy Helicopter Mission and Flight Management Computers to Meet New Threats

An MH-60R Seahawk helicopter assigned to the Swamp Foxes of Helicopter Maritime Strike Squadron (HSM) 74 flies in front of the guided-missile cruiser USS San Jacinto (CG 56). Curtiss-Wright's Defense Solutions has been awarded a contract to upgrade MH-60R/S Seahawk mission computers and flight management computers *U.S. NAVY / French navy / Chief Petty Officer Bruno Gaudry*

ASHBURN, Va. – Curtiss-Wright's Defense Solutions division announced June 7 it was awarded a contract by Lockheed Martin to provide its Modular Open-Systems Approach (MOSA) computers and video processing modules to upgrade the Mission Computer and Flight Management Computer (MC/FMC) on the U.S. Navy's fleet of Sikorsky MH-60R/S Seahawk helicopters.

The use of commercial off-the-shelf (COTS)-based MOSA solutions and commercial best practices will deliver cost-effective new capabilities and support more economical and timely upgrades of the helicopter's avionics systems. Curtiss-Wright's selection on this upgrade program is representative of its ability to rapidly and cost-effectively modernize legacy military platforms with open-standards solutions, the company said.

The initial contract is valued at $24 million. The estimated lifetime value of the contract is $70 million. Under the multi-year contract, shipments began in December 2020.

"We are very pleased that Lockheed Martin selected us to

provide our defense-focused open standards-based COTS single board computer and video processing solutions to support the upgrade of the mission computer and flight management computer on the U.S. Navy's MH-60R/S helicopter fleet," said Chris Wiltsey, senior vice president and general manager, Curtiss-Wright Defense Solutions. "This agreement, which further strengthens the long and successful relationship we have with Lockheed Martin, highlights Curtiss-Wright's ability to enhance interoperability and improve cost efficiencies with electronics systems that adhere to the DoD's mandate for a modular open architecture approach."

The MH-60R/S MC/FMC upgrade will bring advanced display graphics capabilities to this important helicopter platform, providing compatibility with existing imaging and display systems and offering enhanced capabilities for future imaging sensors and high-resolution displays. The COTS modules also enable integration of Curtiss-Wright's enhanced Trusted and Secure Computing features to ensure system resiliency and secure operation in response to cyber attacks.

Navy Awards Austal Functional Design Contract for T-ATS Ship

A rendering of the Navajo-class Towing, Salvage and Rescue Ship (T-ATS). *AUSTAL USA*

MOBILE, Ala. – Austal USA was awarded a $3.6 million contract by the U.S. Navy for the functional design of the Navajo-class Towing, Salvage and Rescue Ship (T-ATS) May 28, the company

said in a June 7 release. This marks the first steel new construction contract for the company after breaking ground on a new steel manufacturing line in March. The line will be operational in April 2022.

Austal will define detailed requirements to construct, test, and deliver T-ATS ships in accordance with government ship specifications. T-ATS is a 263-foot (80 meter) steel hulled multi-mission platform scheduled to replace the capabilities of both the retiring Rescue and Salvage Ship (T-ARS 50) class and Fleet Ocean Tug (T-ATF 166) class mission requirements. The ships are able to support towing, salvage, rescue, oil spill response, humanitarian assistance, and wide area search and surveillance.

T-ATS can also embark containerized systems including cyber, electronic warfare, and decoy and surveillance packages. The work will be performed in Mobile, Alabama.

Marine Corps Completes First AH-1Z Flight with Link-16

The U.S. Marine Corps successfully demonstrated in-flight testing of a two-way connection between an AH-1Z Viper helicopter and a ground station using new Link-16 hardware and software. *BELL TEXTRON*

PATUXENT RIVER, Md. – The U.S. Marine Corps has successfully demonstrated in flight testing a two-way connection between the AH-1Z Viper helicopter and a ground station using new Link-16 hardware and software, Bell Textron Inc. said in a June 7 release.

The company manufactures the AH-1Z Viper and Northrop Grumman Corp. has developed the Link-16 system. Link-16 is part of a defined road map of planned improvements designed to ensure the H-1 platform maintains its technological edge and combat capability throughout its service life.

“Bell is excited to help bring this capability to the USMC H-1 community,” said Mike Deslatte, Bell H-1 vice president and program director. “The ability to participate in the modern and connected battlefield makes the aircraft more lethal and better-equipped to support Marines on the ground.”

Link-16 enables the AH-1Z – unlike any other helicopter in the world with its fully integrated anti-air capability and AIM-9 Sidewinder – to quickly obtain and share information from its sensors with other weapons systems using its onboard digital architecture. This is accomplished through Northrop Grumman’s Link-16 package, which includes a new digital moving map, a new security architecture, and the Link-16 and Advanced Networking Wideband Waveform (ANW2) datalinks.

“Northrop Grumman’s Link-16 system will help U.S. Marines today, and well into the future, with critical technology that facilitates coordination, collaboration, and interoperability. By enabling the display and integration of Link-16 data with the H-1 system, pilots of the AH-1Z have greater situational awareness and enhanced survivability,” said James Conroy, vice president, navigation, targeting and survivability at Northrop Grumman. “This milestone also highlights our focus on “speed to fleet,” due to the unprecedented time between demonstrating the concept and getting to first flight. Flexibility and adaptability, using next generation agile development practices, are the only ways to innovate and keep pace with changing mission needs.”

In a collaboration between the Marine Corps’ H-1 Light/Attack Helicopter program (PMA-276), Bell, and Northrop Grumman, the team leveraged commercial best practices of Agile Development

methodologies. This strategy provided an under-glass solution from concept requirements to vehicle design testing in 12 months.

Northrop Grumman's Lead Technology Integration group rapidly architected and integrated a mission package for Link-16, including a modern digital mapping solution, for the H-1 platform while Bell's H-1 program team provided all of the necessary vehicle analysis and modifications to incorporate the mission equipment throughout the existing integrated systems of the AH-1Z. Together, the teams are redefining what it means to rapidly field integrated solutions on existing fielded platforms to increase warfighter capabilities.

"The H-1 has decades of battlefield experience, it has evolved to fight in numerous environments," said Col. Vasilios Pappas, PMA-276 program manager. "The integration of Link-16 aligns with this platforms' ability to adapt to the ever-changing threat and meet the needs of current and future warfighters."

The Marine Corps has flight tests planned for the AH-1Z throughout the summer, which will be followed by flight testing of Link-16 on the UH-1Y Venom. The service anticipates AH-1Z initial fleet integration with Link 16 in 2022.

Ghost Fleet Overlord USV Program Completes Second Autonomous Transit to the

Pacific

A Ghost Fleet Overlord vessel takes part in a capstone demonstration during the conclusion of Phase I of the program in September, 2020. Two existing commercial fast supply vessels were converted into unmanned surface vessels for Overlord testing, which will play a vital role in informing the Navy's new classes of USVs. *U.S. NAVY*

ARLINGTON, Va. – The Office of the Secretary of Defense Strategic Capabilities Office (SCO), in partnership with the U.S. Navy, recently conducted a second long-range autonomous transit with a Ghost Fleet Overlord Unmanned Surface Vessel (USV) from the Gulf Coast, passing through the Panama Canal, to the West Coast.

The unmanned vessel, named Nomad, traveled 4,421 nautical miles, 98% of which was in autonomous mode. The first Ghost Fleet Overlord vessel, Ranger, completed a similar transit in October 2020. Both USVs passed through the Panama Canal while in manual mode.

The Nomad transit provided an opportunity for extended testing of vessel endurance, autonomous operations, and interoperability of government command, control, communications, computers and intelligence systems with vendor autonomy, hull mechanical and hull electrical systems. Remote mission command and control for the Nomad transit was conducted from an ashore Unmanned Operations Center operated by U.S. Navy Sailors from Surface Development Squadron One.

"This is another significant milestone for SCO's Ghost Fleet Overlord program and supports the Navy's Unmanned Campaign Framework by adding a second Overlord vessel to the West Coast. The SCO Ghost Fleet Overlord program serves to inform Navy prototype efforts by integrating mature technologies to accelerate Service priorities and is a key piece of the build a little, test a little, and learn a lot philosophy

articulated in the Navy Unmanned Campaign Framework," said SCO Director Jay Dryer.

The NomadUSV is joining the Ranger USV to participate in fleet experimentation exercises to further mature the autonomy systems, demonstrate system reliability, and explore employment concepts for coordinated operations with manned combatants while stressing our command-and-control systems. Both vessels will continue to provide key system data, enable fleet operator feedback, and demonstrate capabilities essential to continued maturation and development of USV concepts of operation.

The Ghost Fleet Overlord program is currently in its second phase, which began in September 2019 and focuses on the integration of government-furnished command-and-control systems and payloads and more complex and challenging naval operations experimentation. Phase II is being conducted with the same vessels and industry teams that took part in Phase I and will conclude in early 2022, at which point both Ghost Fleet Overlord vessels will transition to the Navy for further experimentation.

The Ghost Fleet Overlord program, executed by SCO in partnership with Program Executive Office – Unmanned and Small Combatants, is playing a central role in informing the Navy's new classes of USVs and serving as part of extensive technical risk-reduction efforts.

"Our close partnership with SCO on the Overlord program is accelerating the technology demonstration, CONOPs [concept of operations] development, and operational command and control of unmanned surface vessels in direct alignment with the Navy's plans," said Capt. Pete Small, Navy program manager for USVs.

Two additional Ghost Fleet Overlord prototype USVs are currently under construction and will be used to expand and

accelerate the Navy’s experimentation and testing.

Future Navy LCS Canberra Christened at Austal


The christening of the USS Canberra, LCS 30, at Austal USA in Mobile, Alabama, Saturday, June 5. *AUSTAL USA*

MOBILE, Ala. – Austal USA hosted the christening ceremony for the future USS Canberra (LCS 30) Independence-variant littoral combat ship on June 5, the company said in a release. Canberra is the 15th LCS designed and constructed by Austal USA and the second U.S. Navy ship to be named after the Australian capital.

“Today, just 16 years after Austal USA joined the U.S. defense industrial base, the company is hosting its 15th littoral combat ship christening – LCS 30, a ship proudly named after the capital of Australia and yet another symbol of the great ties between our two countries,” stated Austal USA Interim President Rusty Murdaugh in his address to the audience at the ceremony.

The ship’s sponsor, Australian Senator and Foreign Minister Marise Payne, attended the ship’s keel laying ceremony in Mobile early last year, but was unable to attend today’s christening ceremony.

Alison Petchell, the Australian Government’s Minister Counsellor Defense Materiel, christened the future USS Canberra (LCS 30).

Canberra (LCS 30) is the 15th of 19 small surface combatants

Austal USA is building for the U.S. Navy. Five are under various stages of construction and a sixth is on contract waiting to start construction. Austal USA is also constructing two Expeditionary Fast Transport ships (EPF) for the U.S. Navy with one more on contract awaiting start of construction.

The company recently broke ground on its new steel manufacturing line to expand its shipbuilding capability to service the U.S. Navy and U.S. Coast Guard's rising demand for steel ships.

Navy to Christen Littoral Combat Ship Canberra

The crew of USS Mobile (LCS 26), man the ship during the commissioning ceremony of Mobile. The newest Independence-class LCS, the future USS Canberra (LCS 30), will be christened June 5. *U.S. NAVY / Mass Communication Specialist 2nd Class Alex Millar*

ARLINGTON, Va. – The Navy will christen its newest Independence-variant littoral combat ship (LCS), the future USS Canberra (LCS 30), during a 12 p.m. CDT ceremony Saturday, June 5 in Mobile, Alabama, the Defense Department said in a June 4 release.

The Australian Minister of Foreign Affairs, Senator the Honourable Marise Payne, serves as the ship's sponsor. As she is unable to attend, His Excellency the Honourable Arthur Sinodinos, Australian Ambassador to the United States, will deliver the christening ceremony's principal address. Todd Schafer, acting assistant secretary of the Navy (Energy, Installations, and Environment) and Vice Adm. Ricky

Williamson, deputy chief of naval operations for Fleet Readiness and Logistics (N4) will also provide remarks. In a time-honored Navy tradition, the Australian Ambassador's wife, Elizabeth Anne Sinodinos, will break a bottle of sparkling wine across the bow on behalf of Foreign Minister Payne.

"Tomorrow we christen the second USS Canberra named for the great capital city of Australia, our stalwart ally and superb naval partner," said acting secretary of the Navy Thomas Harker. "In so doing we move one step closer to welcoming a new ship to Naval service and transitioning the platform from a mere hull number to a ship with a name and spirit. There is no doubt future Sailors aboard this ship will carry on the same values of honor, courage and commitment upheld by crews from an earlier vessel that bore this name."

LCS is a fast, agile, mission-focused platform designed to operate in near-shore environments, winning against 21st-century coastal threats. The platform is capable of supporting forward presence, maritime security, sea control, and deterrence.

The LCS class consists of two variants, the Freedom-variant and the Independence-variant, designed and built by two industry teams. The Freedom variant team is led by Lockheed Martin in Marinette, Wisconsin (for the odd-numbered hulls). The Independence-variant team is led by Austal USA in Mobile, Alabama, (for LCS 6 and the subsequent even-numbered hulls).

LCS 30 is the 15th Independence-variant LCS and 30th in class. It is the second ship named in honor of the city of Canberra. The first USS Canberra (CA 70) was laid down as USS Pittsburgh on Sept. 3, 1941, and renamed Canberra on Oct. 15, 1942. She was named in honor of the Australian heavy cruiser HMAS Canberra, which sank after receiving heavy damage during the Battle of Savo Island.

CA 70 was the first U.S. Navy cruiser named for a foreign

capital. USS Canberra (CA 70) received seven battle stars for her service in World War II. In May 1958, Canberra served as the ceremonial flagship for the selection of the Unknown Serviceman of World War II and Korea. Canberra was decommissioned in a ceremony on Feb. 2, 1970, at the San Francisco Bay Naval Shipyard. One of her propellers is preserved at the Los Angeles Maritime Museum, while the ship's bell was donated to the Australian National Maritime Museum in 2001.

NATO Carrier Strike Groups Train Together in the Mediterranean

French carrier Charles de Gaulle and British carrier Queen Elizabeth have conducted joint training 1-4 June 2021. The naval training carried out between the two forces, dubbed Gallic Strike, involved 15 ships and 57 aircraft. *NATO*
NORTHWOOD, U.K. – French carrier Charles de Gaulle and British carrier Queen Elizabeth conducted joint training June 1-4, the Allied Maritime Command said in a June 4 release. The naval training carried out between the two forces, dubbed Gallic Strike, involved 15 ships and 57 aircraft.

Organized by France in its maritime approaches, the naval interaction was an opportunity for the French Carrier Strike Group, which is completing its thirteenth operational deployment, to work for the first time with the British carrier strike group and its aircraft, strengthening cooperation between the two navies.

Gallic Strike exercise consisted mainly of training for a dual carrier operation, that is, training between aircraft carriers to coordinate and fight together in an integrated command structure. This sequence, which included a sea-to-land strike simulation and joint tactical maneuvers between Rafale marine and F-35B aircraft, gave them the opportunity to work together in a variety of fields, such as anti-aircraft, anti-surface warfare and power projection capabilities.

“Allied cooperation and interoperability have reached new heights with this first meeting of the French and U.K. carrier strike groups at sea. These initiatives ensure crews, aircraft and ships are interoperable and able to seamlessly support one another when the need arises. More broadly, this activity is a tremendous demonstration of the burden-sharing at the core of the NATO Alliance and is essential to our ability to generate peace in perpetuity,” said Maj. Gen. Phillip A. Stewart, deputy chief of staff, Strategic Employment, Supreme Headquarters Allied Powers Europe (SHAPE).

Gallic Strike brought together also the Allies integrated into the two naval air groups – American, Greek, Italian and Dutch. The exercise included the participation of the USS Thomas Hudner, integrated into the French CSG, while the destroyer USS The Sullivans and 10 American F-35Bs reinforced the British CSG.

Since Feb. 21, 2021, and until this summer, the French carrier strike group, formed around the aircraft carrier Charles de Gaulle, has been deployed as part of the Clemenceau 21 mission. It took part in the fight against terrorism by integrating Operation Inherent Resolve/Chammal and deployed in strategic areas of interest in the Mediterranean Sea, the Indian Ocean and the Arabian Gulf. Task Force 473 has also contributed to guaranteeing freedom of navigation and securing and defending these strategic areas. Accompanied by foreign frigates from time to time, it demonstrates the interoperability and level of trust between the French navy

and its allies. The group is now on the way home.

HMS Queen Elizabeth is the flagship for U.K. Carrier Strike Group 21, a deployment that will see the ship and her escorts sail to the Asia-Pacific and back. It leads six Royal Navy ships, a Royal Navy submarine, a U.S. Navy destroyer and a frigate from the Netherlands in the largest concentration of maritime and air power to leave the U.K. in a generation. Its seven-month global deployment will extend through the Mediterranean and Indian Ocean and on to the Indo-Pacific, interacting with more than one-fifth of the world's nations.

The training comes after HMS Queen Elizabeth's participation in the NATO exercise Steadfast Defender, where it interacted with two of NATO's Standing Naval Groups. Both Standing NATO Maritime Group One, and Standing Maritime Group Two took part in the training, along with assets from 20 Allied and partner nations.

Several Allied aircraft carriers, under national command, are deploying into SACEUR area of responsibility during these months, demonstrating allied unity and commitment to effectively deliver multi-domain effects. The carrier strike activity demonstrates power projection over large distances with its unparalleled combat capability and are a critical element of NATO deterrence.

Navy Accepts Delivery of Ship-to-Shore Connector, LCAC

102

The Navy’s newest Landing Craft Air Cushion (LCAC) hovercraft arrived at Naval Surface Warfare Center Panama City (NSWC PCD) Sept. 2, 2020. The two craft, LCAC 100 and LCAC 101, were escorted by NSWC PCD’s research, development, test and evaluation craft, LCAC 91. This effort is part of the Navy’s Ship to Shore Connector Program which calls for the procurement of 72 craft with a separate craft serving as a test and training craft. *U.S. NAVY / Ronald Newsome*
WASHINGTON – The Navy accepted delivery of the next-generation landing craft, Ship-to-Shore Connector (SSC), Landing Craft, Air Cushion (LCAC) 102, June 3, the Navy’s Program Executive Office – Ships said in a release.

Delivery follows successful completion of Acceptance Trials with the Navy’s Board of Inspection and Survey to test the readiness and capability of the craft and to validate requirements.

“SSC provides the Navy and Marine Corps team with the capability and capacity needed to execute a range of complex missions with agility and speed,” said Capt. Cedric McNeal, program manager, Amphibious Warfare Programs, Program Executive Office (PEO) Ships. “With increases in performance and reliability, this next generation craft will meet the needs of the fleet for years to come.”

LCACs are built with similar configurations, dimensions, and clearances to legacy LCAC, ensuring the compatibility of this next-generation air cushion vehicle with existing well deck equipped amphibious ships, as well as the Expeditionary Transfer Dock.

The SSC program is now in serial production with LCACs 103-115 making progress on the production lines at Textron Systems in

Slidell, Louisiana.

SSC training craft, LCACs 100 and 101 are in the initial operator training pipeline and are in post-delivery test and trials at Naval Surface Warfare Center Panama City Division.