HII Division Delivers First 3-D Metal Part for Installation on Nuclear-Powered Aircraft Carrier

NEWPORT NEWS, Va. – Huntington Ingalls Industries' (HII's) Newport News Shipbuilding division has achieved a milestone in the integration of additive manufacturing into the design and fabrication of components for nuclear-powered warships. The company has delivered the first 3-D-printed metal part to the U.S. Navy for installation on an aircraft carrier.

The milestone was recognized during a brief ceremony Jan. 29 at Naval Station Norfolk. The part was presented to Rear Adm. Lorin Selby, Naval Sea Systems Command's chief engineer and deputy commander for ship design, integration, and naval engineering. The part – a piping assembly – will be installed on the aircraft carrier USS Harry S. Truman and evaluated for a one-year period.

"We are pleased to have worked so closely with our Navy partners to get to the point where the first 3-D metal part will be installed on an aircraft carrier," said Charles Southall, Newport News' vice president of engineering and design. "The advancement of additive manufacturing will help revolutionize naval engineering and shipbuilding. It also is a significant step forward in our digital transformation of shipbuilding processes to increase efficiency, safety and affordability. This is an accomplishment we all should be proud of."

NAVSEA last year approved the technical standards for 3-D printing after extensive collaboration with the company and industry partners that involved the rigorous printing of test

parts and materials, extensive development of an engineered test program, and publishing of the results. The highly digitized process could lead to cost savings and reduced production schedules for naval ships.

Navy Awards Vigor Drydocking Contract for LCS USS Coronado

PORTLAND, Ore. – The U.S. Navy has awarded the contract to execute the Drydocking Selected Restricted Availability (DSRA) for USS Coronado (LCS 4) to Vigor, the company said in a Jan. 29 release. Work will be performed at Vigor's Portland shipyard.

The award is the latest in a series of awards in Vigor's growing Navy repair program and is its first as prime contractor in the littoral combat ship program. Other recent Vigor projects with the U.S. Navy include the execution of the SRA for the USS Kidd at the Everett Naval Station and the DSRA for the USS Sampson in Vigor's Seattle facility.

Ship repair and service life extension in the defense sector has been a growth area for Vigor's Pacific Northwest shipyards. The company recently promoted Mike Pearson, Navy veteran and former general manager at Vigor to vice president of Navy and Puget Sound Repair.

"Mike has delivered outstanding results in building the strong teams and processes that continue to improve our competitive position in complex Navy programs," said Adam Beck, Vigor executive vice president of Ship Repair. "His efforts, together with Vigor's great team of skilled craftspeople, are proving the Pacific Northwest has a strong role to play in

maintaining the fleet readiness of today’s Navy.”

Vigor will begin work on the Coronado in March and run through November. The work package includes engine and machinery overhauls, underwater hull coatings, life-cycle inspections, and implementation of multiple ship alterations and upgrades to increase the Coronado’s warfighting readiness. The package also includes multiple upgrades directed at increasing the overall quality of life for deployed service men and women.

“This award is a testament to the significant capabilities of all Vigor employees and its valued sub-contractors,” said Kellan Lancaster, business development, Ship Repair. “We look forward to providing exceptional service and an on-time delivery.”

Navy to Commission Submarine South Dakota

ARLINGTON, Va. – The Navy will commission its newest fast-attack submarine, the future USS South Dakota (SSN 790), during a ceremony Feb. 2 at Naval Submarine Base New London in Groton, Connecticut, the Defense Department said in a release.

The principal speaker will be U.S. Sen. Mike Rounds of South Dakota. The submarine’s sponsor is Deanie Dempsey, wife of the 18th Chairman of the Joint Chiefs of Staff, Gen. Martin Dempsey. She will give the order to “man our ship and bring her to life!” in a time-honored Navy tradition.

“USS South Dakota enters service during a period of dynamic security challenges,” said Navy Secretary Richard V. Spencer. “I am confident USS South Dakota and its crew will ensure our

Navy and nation remain safe and strong, and proudly serve our nation’s interest for decades to come.”

South Dakota, a Virginia-class submarine is the third ship to bear the state’s name. The first South Dakota was an armored cruiser commissioned Jan. 27, 1908. The ship served in a convoy escort role during World War I before being renamed Huron June 7, 1920. It was decommissioned following seven years of service in the Pacific on June 17, 1927.

The second ship was a battleship commissioned March 20, 1942. It saw service in a number of important World War II battles including Santa Cruz, Guadalcanal, Philippine Sea, and Okinawa, earning 13 battle stars over the course of the war. South Dakota was present at Tokyo Bay when the Japanese surrendered and was later placed out of commission on Jan. 31, 1947.

USS South Dakota is the 17th Virginia-class attack submarine and the seventh Virginia-class Block III submarine.

USS Chung-Hoon Conducts Second Drug Bust in a Month

GULF OF ADEN – While conducting maritime security operations in the international waters of the Gulf of Aden, the guided-missile destroyer USS Chung-Hoon interdicted a shipment of illicit narcotics aboard a stateless vessel on Jan. 24, the U.S. 5th Fleet Public Affairs said in a release.

Chung-Hoon’s visit, board, search and seizure (VBSS) team seized 4,700 kilograms of hashish while conducting a flag verification boarding. This is the second such interdiction

within a month. The Chung-Hoon seized over 5,000 kilograms of hashish while patrolling the Gulf of Aden on Dec. 27.

“What I’m most proud of is the synergy between our information, operations and boarding teams that allowed us to complete the mission,” said Cmdr. Brent Jackson, commanding officer of Chung-Hoon. “Teamwork is the key enabler, and this crew was on station, ready to roll at sunrise to complete the task of interdicting contraband.

The vessel was determined to be stateless following a flag verification boarding conducted in accordance with customary international law. The vessel and its crew were allowed to depart once the narcotics were seized.

Chung-Hoon is serving as the surface action group commander, leading the Whidbey Island-class amphibious dock landing ship USS Fort McHenry, during maritime security operations in the Gulf of Aden. Both ships are operating under Task Force 55.

Chung-Hoon is deployed to the U.S. 5th Fleet area of operations in support of naval operations to ensure maritime stability and security in the Central Region, connecting the Mediterranean and the Pacific through the western Indian Ocean and three strategic choke points.

The U.S. 5th Fleet area of operations encompasses nearly 2.5 million square miles of water area and includes the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean. The region is comprised of 20 countries and includes three critical choke points at the Strait of Hormuz, the Suez Canal and the Strait of Bab-al-Mandeb at the southern tip of Yemen.

CNO Defends Survivability, Utility of Aircraft Carriers

WASHINGTON – The Navy's top officer defended the notion of survivability for U.S. aircraft carriers and their battle groups in an era when great power competitors are developing advanced weaponry such as hypersonic missiles.

"There is a great virtue to being able to move an airfield 720 miles in a day," Adm. John M. Richardson, chief of naval operations, said Jan. 28 to an audience at the Brookings Institution, referring to the mobility of an aircraft carrier as opposed to a land-based airfield.

Stating that the topic of hypersonic missiles necessarily involved classified information that he could not discuss, Richardson said that the Navy was very much engaged in ensuring the survivability of its aircraft carriers.

"So rather than talk about the vulnerability of the carrier strike group, we should think about it as the most survivable airfield in the region," Richardson said. "If you look at the history of the vulnerability of aircraft carriers, we're less vulnerable now than we have been since and including World War II.

"In the Cold War, the Soviet submarine force was out there in great numbers, so there was vulnerability associated with that. So a combination of operational concepts and defensive systems – it is a give and take as we go – those carriers are able to have a big impact on the operational space."

Keel Authenticated for 12th Expeditionary Fast Transport

MOBILE, Ala. – The U.S. Navy held a keel-laying and authentication ceremony for its 12th expeditionary fast transport (EPF) vessel, Newport (EPF 12), at Austal USA's shipyard., Jan. 29, the company said in a release. The keel was said to be "truly and fairly laid" as it was authenticated by Charlotte Dorrance Marshall, signing her initials into the keel plate.

"We are excited to celebrate a major milestone in the construction of the 12th EPF of the class," said Capt. Scot Searles, Strategic and Theater Sealift program manager, Program Executive Office-Ships. "These ships have proven versatility and capability, allowing them to be strategic assets to our fleet and partners abroad. The milestone we celebrate today is the first of many as we work to deliver another highly capable platform."

EPFs are noncombatant vessels designed to operate in shallow-draft ports and waterways, increasing operational flexibility for a wide range of activities including maneuver and sustainment, relief operations in small or damaged ports, flexible logistics support, or as the key enabler for rapid transport. The ships are capable of interfacing with roll-on/roll-off discharge facilities, as well as on/off-loading vehicles such as a fully combat-loaded Abrams Main Battle Tank.

EPFs support a variety of missions including the overseas contingency operations, conducting humanitarian assistance and disaster relief, supporting special operations forces, and supporting emerging joint sea-basing concepts. EPFs are capable of transporting 600 short tons 1,200 nautical miles at an average speed of 35 knots. Each vessel includes a flight

deck to support day and night aircraft launch and recovery operations. Burlington will have airline-style seating for 312 embarked forces with fixed berthing for 104.

USNS Burlington (EPF 10) was delivered in November, and Austal USA is currently in production on Puerto Rico (EPF 11), which was christened in November. The Navy issued Austal long-lead-time material contracts late last year for EPF 13 and EPF 14.

Navy Awards Boeing $2.4 Billion P-8A Poseidon Contract

ARLINGTON, Va. – The U.S. Navy has awarded Boeing a $2.4 billion production contract for the next 19 P-8A Poseidon aircraft, the company announced in a Jan. 28 release.

The contract includes 10 aircraft to add to the current inventory of P-8As in the U.S. Navy fleet, all five jets currently under contract for Norway and the four aircraft remaining for the existing United Kingdom contract, bringing the total U.K. acquisition to nine aircraft.

The United Kingdom and Norway are acquiring the Boeing aircraft through the Foreign Military Sales process and will receive a variant designed and produced for the U.S. Navy called the P-8A Poseidon. The United Kingdom will receive its first aircraft this year and Norway will begin receiving aircraft in 2021.

The P-8 is a long-range multimission maritime patrol aircraft capable of broad-area, maritime and littoral operations. A

military derivative of the Boeing Commercial Next-Generation 737 airplane, the P-8 combines superior performance and reliability with an advanced mission system that ensures maximum interoperability in the battle space.

The P-8 is militarized with maritime weapons, a modern open mission system architecture, and commercial-like support for affordability. The aircraft has been modified to include a bomb bay and pylons for weapons – two weapons stations on each wing – and can carry 129 sonobuoys. The aircraft is also fitted with an in-flight refueling system. With more than 180,000 flight hours to date, P-8 variants, the P-8A Poseidon and the P-8I, patrol the globe performing anti-submarine and anti-surface warfare; intelligence, surveillance and reconnaissance; humanitarian; and search and rescue missions.

CNO: 'We've Got to Restore Agility'

WASHINGTON – The Navy must be able to rapidly adjust to changing geopolitical situations and technological advances to maintain maritime superiority, the Navy's top officer said.

"We've got to, in the Navy, restore agility," said Adm. John M. Richardson, chief of naval operations (CNO), said Jan. 28 to an audience at the Brookings Institution, a Washington think tank.

Richardson was not talking just of acquisition agility, a recent theme of other Navy officials to make the weapons procurement more responsive to emerging requirements, though he touched on that need as well.

The CNO said that agility has three dimensions, one of which is conceptual agility in the way the Navy operates.

“Frankly, we just need more imagination,” he said. “We have a conceptual or imagination challenge to be competitive at the low end of the spectrum [of naval warfare]. At the high end there is this capability challenge as technology moves faster and faster and more tools become available. We want to make sure that at the high end we get things done, get them done faster, get them out to the fleet faster so that we will compete.”

The second dimension is geographical agility.

“The Navy got very, very good at putting strike groups together,” he said. “Those strike groups would leave Norfolk or San Diego and book it to the [Persian] Gulf. They would do their operations and stay there as long as they could and then they would come back. We got excellent at that. But that was very predictable. We had the Optimized Fleet Response Plan, optimized to get the most presence for the least amount of resources. It got pretty optimized that way.

“It wasn’t very flexible, it wasn’t very dynamic, and it wasn’t very agile,” Richardson said. “As we regain that muscle memory [and] go back and do those sorts of things, this geographic agility, going to places we haven’t been in a long time, we’re doing so a little bit less predictably [with] fewer indicators of where we’re going to go, is a big part of our business.

Richardson made the same point with the Navy’s role in ballistic missile defense (BMD).

“We’ve had some ships protecting some pretty static assets on land for a decade now,” he said. “That [BMD] ship is designed to be a maneuver force. If that asset is going to be a long-term protective asset, then let’s build something on land and liberate these ships from this mission.

“[BMD] is an important mission,” he said. “We will be there as long as we need to, but it seems that land-based system is better suited to protect a land-based asset than a ship. Then I can take

a ship out of those small boxes where they have to stay for ballistic missile defense and get them moving again.”

The CNO noted the recent voyage of the USS Harry S. Truman carrier strike group north of the Arctic Circle as an example of geographic agility, the first such carrier operations since 1991.

Speaking of the third type, technological agility, the CNO said, “We simply have to get better at this. It’s a strategic Achilles’ Heel. It’s the lack of tempo in terms of how we can field technology to the fleet. We cannot get outpaced in this.”

Richardson also said the current great power competition “is going to be a long competition. We have to think in terms of infinite-game-type strategy.”

He pointed out that, at the high end of the warfare spectrum, “the U.S. Navy must always de-escalate on the high end on our own terms. Which is another way of saying we want to have the best capability on the water.”

MCM Mission Package Completes Integration Testing of

Unmanned Vehicles

SAN DIEGO – The Littoral Combat Ship (LCS) Mission Module Program successfully completed shipboard integration testing of two unmanned systems on board USS Independence (LCS 2) Jan. 14, Naval Sea Systems Command said in a Jan. 24 release.

The two systems – the Knifefish unmanned undersea vehicle (UUV) and Unmanned Influence Sweep System (UISS) – are part of the Mine Countermeasures Mission Package (MCM MP), which uses a system-of-systems approach to target specific portions of the water column and segments of the MCM detect-to-engage sequence.

During these integration events, both the Knifefish and UISS successfully verified the communications link between Independence and the unmanned systems as well as executed multiple launch and recovery evolutions from the ship. These test events mark a critical milestone for the LCS Mission Module Program, having now successfully tested each vehicle in the MCM MP (that is, an MH-60S helicopter, MQ-8B Fire Scout unmanned helicopter, UISS and Knifefish UUV) on board an Independence-variant LCS.

In addition to UISS and the Knifefish UUV completing integration tests, the program has certified all the aviation modules for the MCM MP for deployment on Independence-variant ships. These airborne MCM systems provide combatant commanders the ability to rapidly deploy systems that can detect near-surface mines as well as neutralizes mines in the water and on the bottom without requiring Sailors to sail into the minefield. Additionally, the Coastal Battlefield Reconnaissance and Analysis system, which is a vertical-takeoff unmanned aerial vehicle payload, provides a much-needed beach zone mine-detection capability in support of the amphibious assault mission.

These tests are a subset of a comprehensive test program that encompasses shore-based system testing to characterize individual systems prior to completing final integration on an LCS. The LCS Mission Module program office will continue to incrementally deliver MCM MP systems to the fleet in advance of the formal MCM MP initial operational test and evaluation events beginning in 2021.

Austal USA Awarded Contract for LCS Post-Delivery Work in Mobile

MOBILE, Ala. – The U.S. Navy awarded Austal USA a $16.3 million contract Jan. 24 to perform extended industrial post-delivery availability work at its Mobile manufacturing facility – a first for Austal USA and the Navy, the company said in a release.

Austal USA will perform post-delivery work on Littoral Combat Ship 20, the future USS Cincinnati (LCS 20), at its Vessel Completion Yard along the Mobile River. This work will include engineering, management and production services in support of prefabrication efforts, material procurement and execution of work items for the LCS 20 Extended Industrial Post Delivery Availability.

Typically, this type of work is performed in San Diego, but through efforts to streamline production, support and sustainment for the LCS program, Austal USA and the Navy are teaming to reduce post-delivery cost and increase efficiency by performing additional work at Austal's facility in Alabama.

“This is an important step in the growth of our post-delivery business,” said Austal USA President Craig Perciavalle. “We are excited to continue to expand our relationship with the Navy to do new post-delivery work in Mobile.”

Established in 1999, Austal USA has grown to become the fifth largest shipbuilder in the United States through innovative practices. The company’s moving modular assembly line revolutionized the shipbuilding industry and helped it capture the U.S. Navy’s expeditionary fast transport contract and the Independence-variant LCS contract, now a critical part of the shipbuilding industrial base supporting nearly 10,000 suppliers across the country.

As the company continues to invest in its workforce and facilities, Austal USA is expanding its offerings in small surface combatants, auxiliary support ships, autonomous vehicles and worldwide post-delivery support and sustainment.

“We’re appreciative of the recognition and confidence the U.S. Navy has displayed in us through continuous contractual awards in ship construction and post-delivery, including the recent award as prime contractor for the drydocking of LCS 14,” said Perciavalle. “But I can tell you, we’ve only scratched the surface on what Austal USA can provide.”