

Sev1Tech Proposes Solutions for Moving Navy Shipyards into the Digital Age



USS Pasadena (SSN 752) arriving at Norfolk Naval Shipyard in 2020 for a Drydocking Selected Restricted Availability. *NORFOLK NAVAL SHIPYARD / Daniel DeAngelis*

ARLINGTON, Va. – As the U.S. Navy makes a huge investment in upgrading and modernizing its four public shipyards, one company is proposing ideas to move shipyard processes from the Industrial Age to the Digital Age using digital information technology.

The Navy is investing more than \$20 billion over 20 years to modernize its shipyards under the Shipyard Infrastructure Optimization Plan, or SIOP. Much of the effort involves modernizing century-old dry docks and other heavy infrastructure.

Patrick Fitzgerald, senior vice president for Navy Missions of SevlTech, is a former Naval Information Warfare Center Atlantic Enterprise Systems Department Head and a manager with a long background in information technology. He told *Seapower* his company is well positioned to contribute to the SIOP the digital transformation of the Industrial-Age processes of Navy shipyards and to “generate a really significant return on investment” and enable the shipyards to “get the ships out to the fleet when needed and fully ready to perform their mission.”

Fitzgerald said the SIOP is a “once-in-a-century thing that our country needs to safeguard itself. “Unfortunately, a lot of the federal government has not moved to the information age; it’s still very Industrial Age processing.”

Among the ideas SevlTech is floating is the use of augmented reality or virtual reality in training the shipyard workers. Fitzgerald said that technology makes for “much more effective training programs that improve knowledge retention.”

The workers “make fewer errors when they actually perform the maintenance. They can verify that a part is being installed in the correct space, [which] will help eliminate re-work for a variety of tasks.”

He also said applying data analytics would result in better parts-demand forecasting and help minimize issues with the global supply chain. Data analytics also would improve auditability, lower the warehousing complexity and costs and reduce or eliminate the time a ship waits for a part to arrive.

Digital twin modeling of the actual layout of the shipyard facilities as they evolve over time can improve shipyard processes.

“One we get that initial model set, you can start doing simulations on that for the evolving needs and the evolving

capabilities,” Fitzgerald said. “It really optimized the layout for the workflow.”

Use of drones is one way to save time and improve productivity, he said.

“The walking that the folks at the four public shipyards do every day is absolutely insane,” Fitzgerald said. “At the end of the day you have to leave the security to get a part and then come back. That’s a lot of lost labor time not directly serving the mission and helping us get that ship out on time. Having the networks in place where a person working on a ship realizes they needed a part that they didn’t expect they needed – if it’s a lightweight part – a drone could potentially fly out a five-pound package to the edge of the ship so they don’t have to walk all the way across the base to get it from a warehouse.”

Fitzgerald pointed out that the Navy owns the airspace over its shipyards and therefore could set the policy of drone operations within the yard.

“We could save hours of an employee’s time every day walking back and forth to get parts or checklists,” he said. “That’s massive for what it could mean to getting a ship out of the shipyard on time and back to the fleet where it needs to be.”

He also advocates leveraging 5G and other wireless communications and use of tablets and other support devices.

With a tablet that can go classified when [a worker goes] into a classified space – and given access to the data and drawings they need dynamically, and as soon as they walk out of that space, no longer have access to that information. That would reduce the complexity of managing them, reduce the risk of that information getting compromised, and give them what they need at the right time when they need it,” he said.

“The investment in IT relative to the investment in the capital infrastructure is pretty small to get a really big yield,” Fitzgerald said.

Reservist's Innovative Idea is a Winner in Navy Waypoints Contest



Lt. Cdr. Jonathan Calhoun (center) holds the i3 Waypoints trophy after Vice Adm. John Mustin (back row, middle) announced Calhoun's "Leveraging Mobile Technology to Streamline Mobilization" as the winning entry of the inaugural i3 Waypoints. Calhoun is surrounded by the other final presenters (front row), the finalist panel and production staff (back row). *U.S. NAVY / Chief Mass Communication*

Specialist Elisandro T. Diaz

FORT MEADE, Md. – A Navy Reservist's innovative concept for adapting a mobile application to better enable mobilization is a winning idea.

Lt. Cdr. Jonathan Calhoun, a Selected Reserve member attached to U.S. Fleet Forces Command Maritime Operations Center (N3 FCC) in Norfolk, Virginia, submitted his entry, "Leveraging Mobile Technology to Streamline Mobilization," as part of the "i3 Waypoints" effort to find new or better ways for the Navy Reserve to operate.

Vice Adm. John B. Mustin, chief of Navy Reserve and commander, Navy Reserve Force, announced the winning entry of the inaugural i3 Waypoints in a streaming broadcast on July 14.

Calhoun's entry was one of 107 received and evaluated by a panel of judges.

Calhoun initially thought of his idea during a mobilization exercise where he realized shifting many of the mobilization requirements to a secure mobile platform would make the process faster and more efficient for both Sailors and Navy Reserve Center staff.

"Empowering Sailors to use their mobile device to complete a significant portion of pre-mobilization requirements will improve the overall experience for the modern-day Sailor and save critical time during mass mobilizations to get warfighting-ready Sailors on station faster," said Calhoun.

Calhoun's entry envisions a mobile application to reduce duplicative administrative requirements for both members and mobilization staff, save critical time by auto-populating data fields across multiple documents, provide real-time transparency and progress status for members and leadership throughout the process, and enable clear and customizable views and reports.

Additionally, the app could remove the difficulties some Reserve members have accessing Common Access Card-enabled sites outside an Navy/Marine Corps Internet environment and would “ensure our ability to mass mobilize, predictably, at scale, and with seamless administration activation workflows” as outlined in the Navy Reserve Fighting Instructions 2022.

“We are already moving out on the design for Lt. Cdr. Calhoun’s mobile application,” said Mustin. “His idea to add mobile technology to our distributed activation process helps us achieve our goal of mobilizing the entire Selected Reserve force of 50,000 in 30 days, if required.”

Mustin conceived of the i3 Waypoints program as an approach to “innovate something entirely new; improve on something already established; or integrate several ideas, products or processes rendering the former completely obsolete.”

The annual competition is designed to fast-track transformative ideas from across the Navy directly to the highest levels of the Navy Reserve, without filters or bureaucratic barriers.

The competition is open to anyone in the U.S. Navy—Selected Reserve, Training and Administration of the Reserve, Individual Ready Reserve, Active Duty and civilians, in all ranks, rates and grades.

Of the 107 entries received, five entries were subsequently chosen and presented to a panel hosted by Mustin, retired Vice Adm. Andrew “Woody” Lewis, Bruce E. Mosler, chairman, global brokerage of Cushman & Wakefield Inc., Navy Reserve Force Master Chief Tracy L. Hunt and 2021 Reserve Sailor of the Year Chief Yeoman (Select) Jasmyn Phinizy.

“The large number of creative, thoughtful strategic ideas submitted in a relatively short timeframe far exceeded our original expectations,” said Mustin. “It demonstrates our Reserve Force’s commitment to innovate, improve efficiencies,

and reduce administrative burdens, allowing us to focus on warfighting readiness – our one and only priority. With such an enthusiastic response from the force, and so many great ideas to modernize the way we do business, we saw enough in this inaugural event to commit to making i3 Waypoints an annual program. Very little is more important to us than keeping the direct pipeline open for creative ideas to flow to top leadership without filter or disruption.”

The other i3 Waypoints finalists, and their winning ideas, are:

- Lt. Brian Adornato, Naval Sea Systems Command, Surge Maintenance Sacramento: “Create a New Category of Personnel: Civilian Technicians”
- Cdr. Bobby Hsu, Director of Navy Staff, Office of the Chief of Naval Operations: “Official Navy Reserve YouTube Channel”
- Cdr. Sarah McGann, Navy Personnel Command (PERS-9), and Lt. Josh Didawick, Office of the Chief of Naval Operations for Manpower, Personnel, Training and Education: “New Policy for Reserve Retirement Education Across the Career Continuum”
- Cdr. Scott Mericle, Navy Reserve Operations, Plans and Policy (N5), Commander, Second Fleet: “Improve Active to Reserve Transition.”

The streamlined broadcast can be viewed here:

<https://www.navyreserve.navy.mil/Resources/I3-Waypoints/>

<https://www.dvidshub.net/video/850290/i3-waypoint-challenge>

<https://www.youtube.com/c/usnavyreserve>

Analysts: Carrier Air Wings Need Sustained Extended Range to Counter China



The U.S. Navy's only forward-deployed aircraft carrier USS Ronald Reagan (CVN 76) steams through the Balabac Strait on July 12. Ronald Reagan, the flagship of Carrier Strike Group 5, provides a combat-ready force that protects and defends the United States, and supports alliances, partnerships and collective maritime interests in the Indo-Pacific region. *U.S. NAVY / Mass Communication Specialist 2nd Class Askia Collins*

WASHINGTON — The U.S. Navy's carrier air wings lack some of the characteristics needed to counter China in the event of a conflict, two naval analysts said in a webinar.

Bryan Clark, senior fellow and director of the Center for Defense Concepts and Technology at the Hudson Institute, and Timothy Walton, a senior fellow at the center, discussed in a July 12 webinar their report "Regaining the High Ground

Against China,” which presents their case that carrier strike groups are challenged by Chinese long-range missile threat and will need a longer-range carrier air wing to affect the battlespace.

The Chinese missile threat could force carrier strike groups to operate at ranges of 1,000 to 1,500 nautical miles away from China, reducing or negating the range with which carrier-based strike fighters could strike hostile forces, Clark said.

Clark noted that the carrier air wing is not set up for combat at sustained ranges and the U.S. Navy is “going to need some way to extend the range of the carrier air wing.”

The carrier air wing’s strike fighters, the F-35C Lightning II and the F/A-18E/F Super Hornet, need aerial refueling to operate at extended ranges. The forthcoming MQ-25A Stingray aerial refueling UAV will enhance the ranges of the strike fighters, relieve some Super Hornets from aerial refueling duties and provide a platform for sensors.

Fleet air defense also has become a capability demanding more attention in view of the Chinese missile threat. The F-14 Tomcat fighter and its Phoenix air-intercept missiles, designed during the Cold War to counter Soviet bombers carrying cruise missiles at long ranges, were retired from the fleet in 2006 and the F/A-18 and F-35 do not have a similar long reach. Clark said the CSG needs a layered defense.

“We need to regain the ability to attack bombers before they can launch their missiles,” Clark said.

He advocated the use of electronic warfare in a more offensive way, including the use of UAVs to confuse enemy defenses. This would involve shifting away from the EA-18G Growler electronic attack aircraft to long-range UAVs, even expendable ones.

The analyst said the Navy needs to change the way it conducts

airborne early warning and intelligence, surveillance and reconnaissance. Possible platforms include the MQ-9 Reaper UAV, stratospheric balloons and satellites.

Clark said the P-8A Poseidon maritime patrol aircraft would need to keep away from enemy air defenses and shift from an anti-submarine search and attack role to one of command and control of unmanned platforms and distributed ASW sensors.

A pdf of “Regaining the High Ground Against China” can be found [here](#).

Ronald Reagan Carrier Strike Group Operates in the South China Sea



An E-2D Hawkeye attached to the “Tigertails” of Airborne Early Warning Squadron 125 prepares to take off from the flight deck of the USS Ronald Reagan (CVN 76). *U.S. NAVY / U.S. Navy Mass Communication Specialist 2nd Class Markus Castaneda*

SOUTH CHINA SEA – The Ronald Reagan Carrier Strike Group is operating in the South China Sea for the first time during its 2022 deployment, July 13, CTF 70/CSG 5 Public Affairs said in a release.

The carrier strike group includes the Navy’s only forward-deployed aircraft carrier USS Ronald Reagan (CVN 76), the embarked Carrier Air Wing 5, and embarked staffs of Task Force 70 and Destroyer Squadron 15, as well as the Ticonderoga-class guided-missile cruiser USS Antietam (CG 54) and the Arleigh Burke-class guided-missile destroyer USS Higgins (DDG 76).

While in the South China Sea, the strike group is conducting maritime security operations, which include flight operations with fixed and rotary-wing aircraft, maritime strike exercises, and coordinated tactical training between surface

and air units. Carrier operations in the South China Sea are part of the U.S. Navy's routine operations in the Indo-Pacific.

"Our strike group works consistently to stay capable and ready and we continue that focus during operations in the South China Sea to demonstrate our commitment to the region," said Rear Adm. Michael Donnelly, commander, Task Force 70/Carrier Strike Group 5. "Building on the lessons and successes of exercises like Valiant Shield 2022, and our continuous opportunities to train and operate alongside allies and partners, we provide assured capability to uphold the rules-based international order in this body of water and anywhere else we will sail, fly and operate."

Throughout the 2022 deployment, Ronald Reagan and accompanying units have routinely integrated with ally and partner naval forces to build high-end warfighting readiness through air defense, anti-submarine warfare, maritime strike, and force protection exercises. In early June this included operations with Republic of Korea navy ships for Carrier Strike Group Exercise 2022. Later that month in the Philippine Sea, the Sailors of CSG 5 worked with more than 200 aircraft and an estimated 13,000 personnel from the U.S. Navy, Air Force, Army, Marine Corps and Space Force during the Valiant Shield exercise, a U.S.-only, biennial field training exercise focused on integration of joint training in a multi-domain environment.

The strike group finished the month of June with a port visit to Guam, where Sailors were able to conduct several community relations events and enjoy recreation and tours across the island, marking the strike group's first port visit since 2020.

"Our presence in the South China Sea demonstrates America's commitment to a free and open Indo-Pacific," said Capt. Fred

Goldhammer, the commanding officer of USS Ronald Reagan. "Every Sailor onboard contributes to this important and enduring mission as we operate in this region, in accordance with international law to ensure that all nations can do the same."

The Ronald Reagan Carrier Strike Group is forward-deployed to the U.S. 7th Fleet area of operations in support of a free and open Indo-Pacific region.

General Atomics EMALS, AAG Systems on CVN 78 Reach 10,000 'Cats and Traps' Milestone



Sailors and their families and friends observe the USS Gerald R. Ford's (CVN 78) 10,000th recovery from the flight deck, June 25. Friends and family members were invited aboard Ford to experience a day in the life of a Sailor at sea first-hand. *U.S. NAVY / Mass Communications Specialist 2nd Class Jackson Adkins*

SAN DIEGO – General Atomics Electromagnetic Systems announced July 12 that 10,000 catapult launches and arrested landings using the Electromagnetic Aircraft Launch System and Advanced Arresting Gear have been successfully and safely completed aboard USS Gerald R. Ford (CVN 78).

The first-in-class aircraft carrier completed planned incremental availability in March 2022 and is now preparing for its upcoming deployment.

“Over the past two years, EMALS and AAG have been rigorously exercised utilizing aircraft in the current air wing. The systems continue to perform successfully in operational, carrier qualification, and training environments and under all weather conditions,” said Scott Forney, president of GA-EMS.

“EMALS and AAG offer robust capabilities that are proving transformative, providing greater availability, efficiency and flexibility to safely launch the air wing of today while standing ready to support new aircraft as they join the air wing of the future. We are extremely proud of our team and the ship’s crew as they continue to meet each new milestone and steadily work toward bringing ‘Warship 78’ to the fleet.”

Under multiple contracts with the Navy, General Atomics Electromagnetic Systems is now supporting CVN 78 sustainment requirements and delivering EMALS and AAG for the next two Ford-class carriers currently under construction, John F. Kennedy (CVN 79) and Enterprise (CVN 80). GA-EMS is also working with the Navy to determine EMALS and AAG contract and schedule requirements for the fourth Ford-class aircraft carrier, Doris Miller (CVN 81).

Fairbanks Morse Defense Launches Training and Service Center Campus



Fairbanks Morse Defense has invested \$13 million to create a campus that expands service and hands-on training opportunities for technicians and customers. *FAIRBANKS MORSE DEFENSE*

BELOIT, Wis. – Fairbanks Morse Defense is launching a 45,000-square-foot training and service center campus in Chesapeake, Virginia.

The defense contractor will move its existing service center from Norfolk, Virginia, to the Chesapeake campus to add a state-of-the-art training facility and further expand advanced service support for its customers. The move represents a \$13 million investment in the community.

“We are excited to have Fairbanks Morse Defense as the newest member of our business community,” said Rick West, mayor of Chesapeake. “The Hampton Roads region has a long and storied history in the defense industry and having Fairbanks Morse Defense locate its new state-of-the-art facility in the city of Chesapeake underscores the city’s commitment to our military and its partners. We look forward to working with Fairbanks Morse Defense as it continues to grow in Chesapeake.”

The company’s new training and service center campus, located

at 733 Curtis Saunders Court, is near Norfolk, Virginia, the largest U.S. Navy and Military Sealift Command fleet concentration in the United States. The U.S. Coast Guard also has a strong presence in the area.

“Training is the forefront of good maintenance practices, and Fairbanks Morse Defense’s training center is incorporating our cutting-edge mixed reality training technology to provide the most comprehensive, interactive marine equipment training solution available,” said FMD President of Services Jamie McMullin. “This location will strengthen FMD’s position as the preferred service solutions and training provider for our core customers while enhancing our rigorous factory-certified training programs for our large network of field service technicians.”

The site also provides room for growth, allowing FMD and its expanded family of brands to use additional space as the company integrates new turnkey products, service solutions, and training programs into the training and service center offerings.

Upon completion in 2023, the site will create approximately 50 new jobs.

**CNO, Netherlands Navy
Commander Discuss Partnership
and NATO Alliance**



Chief of Naval Operations Adm. Mike Gilday visits the German training ship Gorch Fock during BALTOPS 22. *U.S. NAVY / Cmdr. Courtney Hillson*

WASHINGTON – Chief of Naval Operations Adm. Mike Gilday met with the commander of the Royal Netherlands Navy, Vice Adm. René Tas, at the Pentagon for an office call on July 12, the CNO's public affairs office said in a release.

The leaders discussed global maritime security, strategic competition and their shared commitment to continued cooperation, to include recent naval exercises involving both countries.

“The Dutch are one of our oldest allies and global maritime partners, and I am grateful for our strong relationship,” said Gilday. “This visit was an important opportunity for us to build upon our solid foundation, look ahead to the future, and reinforce our commitment to unity and to the NATO alliance.”

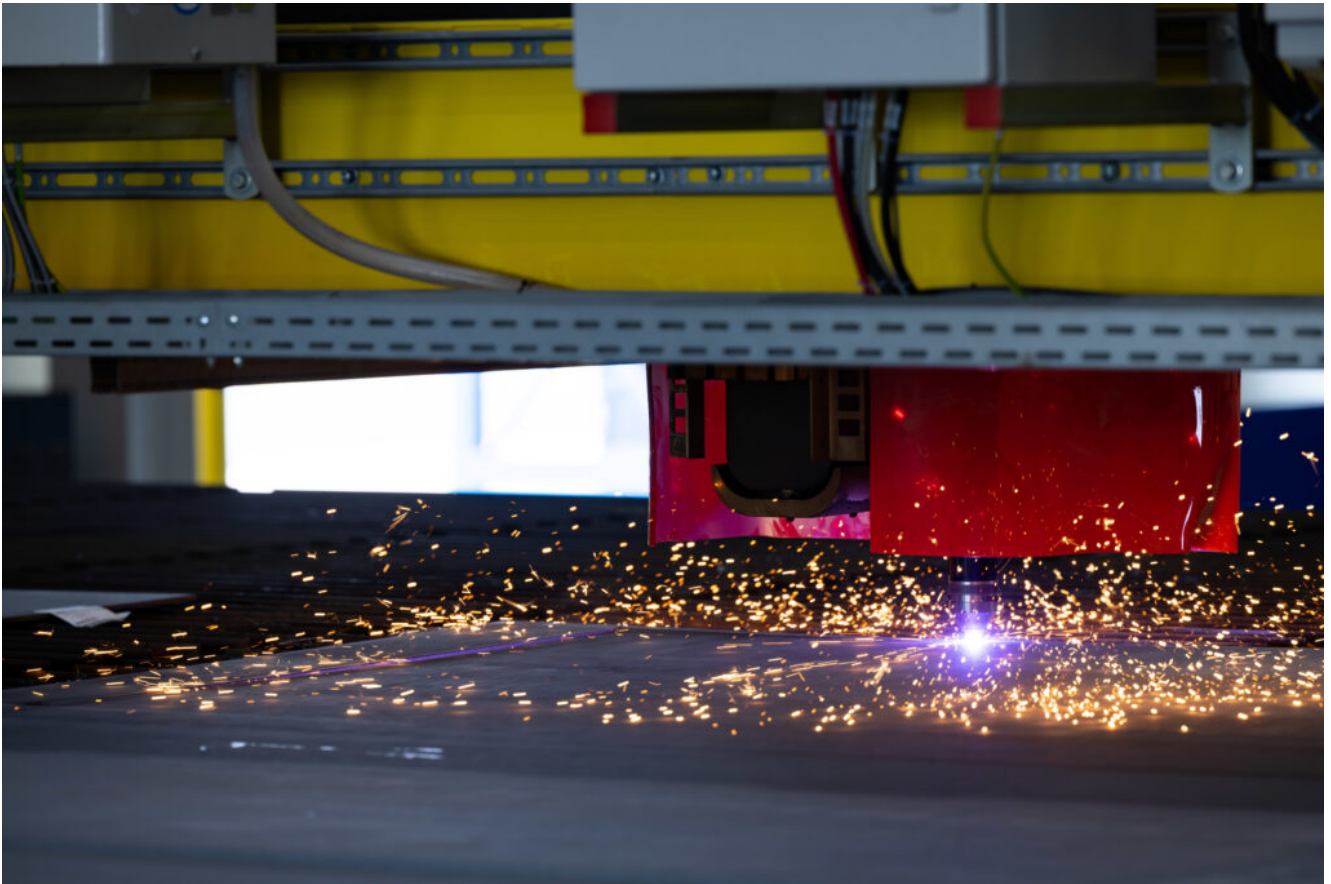
Gilday also noted the value and significance of the Royal Netherlands Navy’s maritime reach, the Dutch being one of a handful of European navies with a global presence stretching to the Indo-Pacific.

“We share the same values and economic interests,” said Tas. “The well-being of our people can only be secured and defended by operating globally. The seas and oceans, just as cyber and space, don’t have borders.”

The U.S. Navy and Royal Netherlands Navy regularly operate together around the world. Recently, they participated in exercises Formidable Shield and Obangame Express, and conducted joint operations, including USS The Sullivans’ (DDG 68) and HNLMS Evertsen’s (F805) participation in HMS Queen Elizabeth’s 2021 deployment. Last month, both navies participated in BALTOPS 22, the premier maritime-focused exercise in the Baltic Region.

This meeting was the second in-person discussion between the two heads of navy.

Start of Construction Marked for T-ATS 11



The start of construction of the T-ATS 11 on the new steel line at Austal USA in Mobile, Alabama. *AUSTAL USA*

WASHINGTON – Construction began on the Navy’s newest towing, salvage and rescue ship, T-ATS 11, at Austal USA’s Mobile, Alabama shipyard on July 11, Team Ships Public Affairs said July 12.

The Navajo-class (T-ATS) provides ocean-going tug, salvage, and rescue capabilities to support fleet operations. T-ATS replaces and fulfills the capabilities that were previously provided by the Fleet Ocean Tug (T-ATF 166) and Rescue and Salvage Ships (T-ARS 50) class ships.

“It’s always a great Navy day when we start construction of a new ship to be used to do the nation’s bidding,” said Rear Adm. Tom Anderson, program executive officer, Ships. “It’s an

exceptional Navy day when the start of construction also marks the expansion of the shipbuilding industrial base, as it does today, as Austal puts its new facility to work building its very first steel ship, a Navajo-class Towing, Salvage and Rescue Ship, T-ATS 11.”

Navajo-class ships will be Multi-Mission Common Hull Platforms based on commercial offshore Anchor Handling Tug Supply (AHTS) vessels. T-ATS supports current missions including towing, salvage, rescue, oil spill response, humanitarian assistance and wide area search and surveillance. They also enable future rapid capability initiatives, supporting modular payloads with hotel services and appropriate interfaces.

T-ATS 11 marks the first steel ship in Austal’s ship construction program. Austal is also contracted to build T-ATS 12, with options for additional ships.

PEO Attack Submarines Holds Change of Command Ceremony



Rear Adm. Jonathan Rucker relieved Rear Adm. David Goggins as Program Executive Office Attack Submarines during a change of command ceremony at the Washington Navy Yard, June 30. *U.S. NAVY*

WASHINGTON – Rear Adm. Jonathan Rucker relieved Rear Adm. David Goggins as Program Executive Office Attack Submarines (PEO SSN) during a change of command ceremony at the Washington Navy Yard, June 30, Team Public Affairs said in a release.

Vice Adm. William Houston, commander, Naval Submarine Forces, served as the principal speaker and expressed his gratitude for the job done by Goggins.

“Your leadership allowed the submarine force to stay atop of our competitors as the world’s best, most lethal, and premier, first class organization that continues to dominate the undersea – and for that, a huge Bravo Zulu to you,” said Houston. “Your dedication to the mission, our people, and the Force is an outstanding example for all to follow.”

Goggins reflected on the submarine workforce's many accomplishments such as completing Virginia Block III Follow-On Test and Evaluation and delivering three nuclear-powered submarines and three SSNs from depot availabilities earlier this year. He also noted that submarine acquisition and sustainment is comprised of four key organizations; Team Submarine, Naval Reactors, Strategic Systems Programs and Chief of Naval Operations Undersea Warfare Division.

"Today's successes and the future success of Team Submarine, PEO SSN, are based on the alignment and collaboration between these key stakeholders," said Goggins.

Rucker is reporting to PEO SSN after serving as Columbia-class submarine program manager, the Navy's number one acquisition program. During his tenure, the Columbia program office was awarded the David Packard Excellence in Acquisition Award for 2021 as the top program office in Department of Defense.

Houston expressed the challenges that Rucker may encounter, saying, "You have a significant task ahead of you. The fiscal and geo-political landscape from which our nation navigates will only become more challenging, and you must make it your priority that the overmatch we currently enjoy does not evaporate."

Rucker's recent assignments include serving as the assistant program manager (APM) for New Acquisitions, Advanced Undersea Systems Program Office; military assistant for the undersecretary for Defense for Acquisition, Technology, & Logistics (USD (AT&L)); APM for New Construction & Test and led construction and test efforts of 12 submarines. He then assumed command as program manager for Unmanned Maritime Systems, responsible for unmanned maritime systems across both the Surface and Undersea domains.

"I am thankful to be a part of the PEO Fast Attack team. These

submarines and undersea systems are built to ensure our undersea advantage,” said Rucker.

Amphibious Transport Dock Fort Lauderdale Sails Away from Ingalls Shipbuilding



Amphibious transport dock Fort Lauderdale (LPD 28) show departing from HII's Ingalls Shipbuilding division on July 11.
HII

PASCAGOULA, Miss. — San Antonio-class amphibious transport dock Fort Lauderdale (LPD 28) departed from HII's Ingalls Shipbuilding division July 11 enroute to its commissioning site in Fort Lauderdale, Florida, HII said in a release.

“Ingalls Shipbuilders take great pride in knowing that each and every amphibious ship that leaves this shipyard will support our Navy and Marine Corps team defending our nation,” said Ingalls Shipbuilding President Kari Wilkinson. “We at Ingalls remain committed to this partnership and consider it a privilege to serve those who serve.”

Fort Lauderdale was delivered to the U.S. Navy in March following acceptance sea trials and is the 12th San Antonio-class ship delivered by HII. Additional San Antonio-class ships are under construction at Ingalls, including Richard M. McCool Jr. (LPD 29) and the first Flight II amphibious ship in the San Antonio class, Harrisburg (LPD 30). Later this year, fabrication will begin on the 15th San Antonio-class ship, Pittsburgh (LPD 31).

“Watching Fort Lauderdale sail away to join the Navy’s fleet is a very proud moment for our entire LPD shipbuilding team and our skilled workforce,” said Mike Pruitt, Ingalls LPD program manager. “Our shipbuilders have done an outstanding job building a mission capable ship for these sailors and our country.”

LPD 28 is scheduled to be commissioned July 30 in Fort Lauderdale. It is named to honor the Florida city’s historic ties to the U.S. Navy, which date back to the 1830s and include an important naval training center during World War II.

Amphibious transport docks are a major part of the Navy’s 21st century expeditionary force, deployed with a U.S. Marine Corps Air-Ground Task Force for amphibious and expeditionary crisis response operations that range from deterrence and joint-force enablement to humanitarian assistance and disaster relief.