U.S. Coast Guard Welcomes New Vice Commandant

Adm. Linda Fagan relieved Adm. Charles Ray as the 32nd Vice Commandant of the Coast Guard during a Change of Watch ceremony at Coast Guard Headquarters, June 18, 2021. Ray retired after more than 40 years of service in the Coast Guard. *U.S. COAST GUARD / Petty Officer 1st Class Travis Magee*

WASHINGTON – Adm. Charles W. Ray was relieved as vice commandant of the U.S. Coast Guard by Adm. Linda L. Fagan during a military change-of-command ceremony held June 18 at U.S. Coast Guard Headquarters, the service said in a release.

Ray served as the vice commandant since May of 2018 and led the Service's recapitalization of its legacy fleet of ships and aircraft while ensuring the Coast Guard's 81,000 active duty, reserve, civilian, and auxiliary members were "Always Ready" to answer the nation's call. Ray retired from the Coast Guard after 40 years of service and received the Department of Homeland Security Distinguished Service Medal from the Secretary of Homeland Security, Alejandro Mayorkas.

"I am extremely proud of the dedication and resiliency I have seen throughout our service and throughout my career," said Ray. "It has been an honor to serve with the men and women of the Coast Guard and it is my privilege to pass the reigns of vice commandant to Adm. Fagan, a true trailblazer and inspiration to so many."

Adm. Fagan most recently served as the commander of the Coast Guard Pacific Area, overseeing all Coast Guard operations in the Pacific, covering more than 74 million square miles of ocean, from the U.S. Western States to Asia, and from the Arctic to Antarctica.

"Thank you, Adm. Ray for your service and your extraordinary

leadership. You have made a tremendous, and long-lasting impact on our great service and we will strive to build upon your extraordinary work," said Adm. Karl L. Schultz, commandant, U.S. Coast Guard. "Adm. Fagan, it is an honor to welcome you as the first woman to serve as a four-star admiral in the U.S. Coast Guard, and I congratulate you as you assume the duties as our 33rd vice commandant. I am proud to be part of this historic moment and look forward to leading the Coast Guard alongside of you."

A change-of-command is a time-honored ceremony that signifies the absolute transfer of responsibility, authority, and accountability from one person to another.

USS Ford Completes First Shock Trial Event

The aircraft carrier USS Gerald R. Ford (CVN 78) completes the first scheduled explosive event of Full Ship Shock Trials while underway in the Atlantic Ocean, June 18, 2021. The U.S. Navy conducts shock trials of new ship designs using live explosives to confirm that our warships can continue to meet demanding mission requirements under harsh conditions they might encounter in battle. *U.S. NAVY / Mass Communication Specialist 3rd Class Riley B. McDowell*

ARLINGTON, Va. – On Friday, June 18, the USS Gerald R. Ford (CVN 78) successfully completed the first scheduled explosive event as part of Full Ship Shock Trials (FSST), the Navy said in a release. The first-in-class aircraft carrier was designed using advanced computer modeling methods, testing, and analysis to ensure the ship is hardened to withstand battle conditions, and these shock trials provide data used in

validating the shock hardness of the ship.

The U.S. Navy has conducted FSSTs over several decades, most recently for the littoral combat ships USS Jackson (LCS 6) and USS Milwaukee (LCS 5) in 2016; as well as for the San Antonio-class amphibious transport dock USS Mesa Verde (LPD 19) in 2008, the amphibious assault ship USS Wasp (LHD 1) in 1990, and the guided missile cruiser USS Mobile Bay (CG 53) in 1987. The last aircraft carrier to execute FSST was USS Theodore Roosevelt (CVN 71) in 1987.

The Navy is conducting the shock trial testing in accordance with Office of the Chief of Naval Operations Instruction 9072.2, and as mandated by the National Defense Authorization Act of 2016.

Ford's shock trials are being conducted off the East Coast of the United States, within a narrow schedule that complies with environmental mitigation requirements, respecting known migration patterns of marine life in the test area. The Navy also has employed extensive protocols throughout FSST to ensure the safety of military and civilian personnel participating in the testing evolution.

Ford is the newest and most advanced aircraft carrier in the U.S. Navy. The ship closed out a successful 18-month Post Delivery Test & Trials period in April, during which the crew completed all required testing, accomplished planned improvements and maintenance ahead of schedule, and learned valuable lessons to increase the reliability of Ford-Class systems. At the same time, the ship also served as the sole East Coast platform for conducting carrier qualifications.

Upon completion of FSST later this summer, Ford will enter a Planned Incremental Availability for six months of modernization, maintenance, and repairs prior to its operational employment.

MBDA Tapped to Provide Sea Ceptor Missile to Brazilian Navy

MBDA will provide its Sea Ceptor air defense missile to Brazil’s navy under a new contract. *MBDA*

MBDA has been awarded a contract to equip the Brazilian navy’s new Tamandaré-class frigates with the Sea Ceptor air defense missile system, the company announced June 17.

Sea Ceptor is a smart weapon control system that, together with the fully-active Common Anti-air Modular Missile (CAMM), provides comprehensive self-defense and local area air defense.

This will enable Brazil’s Tamandaré-class frigates to protect themselves, consorts and fixed infrastructure against the full range of threat types at sea or in harbor, and in the most stressing operational scenarios. Sea Ceptor is in operational service with the Royal Navy’s Type 23 frigates, and has been selected for the new Type 26 and Type 31 frigates.

Brazil joins Chile, New Zealand and Canada in a growing list of international Sea Ceptor users. The CAMM missile has also been delivered to the British Army in the ground-based air defense role.

Boeing, ESG, Lufthansa Technik Partner for Potential German P-8A Poseidon Fleet Support

Boeing signed agreements with ESG and Lufthansa Technik that outline joint efforts to explore potential areas of collaboration in systems integration, training, support and sustainment work in anticipation of Germany selecting the P-8A as its next maritime surveillance aircraft. *BOEING*

BERLIN – Boeing signed agreements June 17 with ESG (Elektroniksystem-und Logistik-GmbH) and Lufthansa Technik that outline joint efforts to explore potential areas of collaboration in systems integration, training, support and sustainment work, Boeing said in a release. The signed memorandum of understanding may lead to more definitive agreements should Germany select the P-8A Poseidon as its next maritime surveillance aircraft.

"Together with ESG and Lufthansa Technik, we will offer indigenous and cost-effective support, training and maintenance solutions that will bring the highest operational availability to the German Navy to fulfill their missions," said Dr. Michael Haidinger, president of Boeing Germany, Central & Eastern Europe, Benelux & Nordics. "Our partnership with ESG and Lufthansa Technik is another testimony to who we are and how we operate in Germany. We are shaping meaningful and long-term industry partnerships that impact the local economy."

Boeing, ESG and Lufthansa Technik have identified opportunities to collaborate in a number of areas and will explore these in more detail, including training and simulation, cyber security, systems integration,

certification, environmental compliance, communications systems, electronic attack and electronic protect systems, aircraft and engine sustainment, component support services, predictive maintenance analysis and logistics services.

“This cooperation agreement underlines once again that we take our responsibility seriously when it comes to ensuring urgently needed capabilities,” said Christoph Otten, CEO of ESG. “As Boeing’s strategic partner for the P-8A Poseidon fleet, we are pleased to be able to make the Bundeswehr a viable offer characterized by effectiveness, efficiency and the reliable delivery of services. As a long-standing partner of the German Bundeswehr and Navy aviators, ESG stands ready with its proven core competencies, solutions, services and products, particularly in the areas of systems integration, aviation certification and secure communication systems.”

Lufthansa Technik has a long history in technical support of Boeing airplanes around the world. In addition, under Boeing’s Performance-Based Logistics program, Lufthansa Technik also provides hardware support to the Italian fleet of Boeing KC-767A tankers and has facilitated outstanding aircraft availability for the Italian air force.

“Lufthansa and Lufthansa Technik are partners with Boeing for more than 60 years. The companies know and value each other. This partnership is an excellent starting point for us to provide technical support at the highest level for this new aircraft, should our long-standing customer, the German Bundeswehr, procure P-8A,” said Michael von Puttkamer, Head of Special Aircraft Services, Lufthansa Technik.

The P-8A Poseidon offers unique multimission aircraft capability and is the only aircraft in service and in production able to meet the full range of maritime challenges faced by European nations. With the P-8A, Germany will be able to leverage full integration and interoperability with NATO nations in the region. Additionally, the P-8A offers

significant capability to meet Germany's collective defense obligations as part of Germany's NATO membership and commitment to EU defense and security, including the maritime domain.

Other German companies that already supply components to the P-8A Poseidon include Aljo Aluminium-Bau Jonuscheit GmbH and Nord-Micro GmbH.

Metaspectral to Provide Canadian Defence with AI/ML Technology to Help Lookouts

A crew member onboard Her Majesty's Canadian Ship (HMCS) St. John's performs lookout duty on the bridge during Exercise Joint Warrior, taking place off the coast of Scotland during Operation Reassurance, April 24, 2018. *FORMATION IMAGING SERVICES / Cpl. Tony Chand*

VANCOUVER, B.C. – Metaspectral, a company offering technology that makes it possible to derive real-time insights from AI using ultra-high-resolution, visible-to-infrared (hyperspectral) imagery, was one of a select few companies awarded up to $200,000 as the first funding component of the Department of National Defence's Innovation for Defence Excellence and Security (IDEaS) program for the Better Than Meets the Eye challenge.

The Department of National Defence and the Canadian Armed Forces (DND/CAF) were seeking innovative solutions to assist maritime lookouts in detecting, characterizing, and tracking objects of interest to improve the efficiency and

safety of maritime operations.

“The role of the maritime lookout is crucial. They are often the first to observe danger at sea, and the safety of ships depends on them. A lookout must spot and quickly identify navigational hazards or other threats,” said, Migel Tissera, Metaspectral chief technology officer. “But we cannot ignore the fact that after long hours, lookouts may become fatigued and are more likely to be prone to human error. This is further compounded by fog and other weather conditions that can reduce visibility.”

The Navy will continue to rely on human lookouts but is also seeking innovative solutions to augment and support a lookout’s ability to see, accurately characterize, and track all items of interest within the range of vision, especially in conditions of low visibility.

“We are designing technology that will use machine learning to enhance the capabilities of marine lookouts. Our technology has the ability to collect and process unprecedented quantities of data from across the electromagnetic spectrum, creating ultra-high-definition images,” added Tissera. “Because we can compress data without losing quality, our technology retains more of the original images than has been previously possible. This will make it easier to spot items of interest in high detail.”

AI analysis requires high-quality data, the more data that can be efficiently processed, the better the result.

A prototype by Metaspectral is expected to be ready by the end of the year.

“Metaspectral is proud to be supporting the important safety and security operations of our brave Canadian armed forces,” added Tissera. “This is just one of many practical real-world uses of our proprietary technology. We’re grateful for the opportunity to demonstrate our talents and abilities in this

portion of military research and development.”

Bollinger Awarded Contract for Light Amphibious Warship Preliminary Design

LOCKPORT, La. – Bollinger Shipyards LLC was awarded a contract by the U.S. Naval Sea Systems Command to conduct a concept study and the preliminary design of the U.S. Navy’s Light Amphibious Warship (LAW), the company announced in a June 16 release.

“Bollinger Shipyards is honored and excited to continue participating in the LAW program,” said Ben Bordelon, Bollinger president and CEO. “We’re confident that we have the experience and expertise necessary to develop a concept study and preliminary design for an advanced warship that meets the complex needs of a modern fleet.”

The LAW program envisions procuring a class of 28 to 30 new amphibious ships to support the Marine Corps, particularly in implementing a new Marine Corps operational concept called Expeditionary Advanced Base Operations (EABO). The Navy envisions the first LAW being procured in fiscal 2023.

Bollinger is fully certified with MSRA and ABR agreements with the U.S. Navy, and is currently building the Navy’s Towing, Salvage and Rescue Ships (T-ATS). In addition to construction of the TAT-S, Bollinger is under contract to construct an Ocean Transport Barge and Floating Dry Dock for General Dynamics Electric Boat Division in support of the construction and maintenance of the nation’s new Columb

ia-class of ballistic-missile submarines. Bollinger is also participating in industry studies for the U.S. Navy's Common Hull Auxiliary Multi-Mission Platform (CHAMP) program, the U.S. Navy's Auxiliary General Ocean Surveillance (T-AGOS(X)) program and the U.S. Navy's Large Unmanned Surface Vehicle (LUSV) program.

AI Likely to Be Integrated into Naval Vessels in Next Five Years, GlobalData Says

One of the manned vessels converted to unmanned for the Ghost Fleet Overlord Program. A new report from GlobalData forecasts much more artificial intelligence is coming to naval ships. *U.S. NAVY*

LONDON – Artificial intelligence (AI) has the potential to make major improvements to modern ships, including decreasing the number of crew required for operations and enabling faster and better-informed decision making in a fast-moving environment, GlobalData, a data analytics company, said in a June 16 release.

A survey by GlobalData finds that 43% of respondents believe that AI will be integrated in a significant way into naval vessels within the next five years, while 31% think this process will take place within 10 years, and only 25% believe that it will take longer than 10 years.

According to GlobalData's report, "AI in Aerospace and Defense," the development of AI presents long-term cost-cutting potential, as well as providing easy-to-understand

analysis based on large datasets. While fully autonomous ships powered by AI may not become the norm within the next 10 years, it is likely that the technology will increasingly be used to aid decision-making in coming years.

“Advanced navies significantly invest in AI, computer and communication technologies in order to have larger and more capable autonomous vessels,” said William Davies, Aerospace and Defense Associate analyst at GlobalData. “For instance, the U.S. Navy converted two existing commercial fast supply vessels into unmanned surface vehicles (USVs) for its Ghost Fleet Overlord Surface program, which aims to inform and accelerate the Navy’s large and medium USV programs. Furthermore, on June 7, 2021, the U.S. Department of Defense awarded a $44 million contract to Austal USA to carry out the design, procurement, production implementation, and demonstration of autonomous capability in Expeditionary Fast Transport (EPF) vessel, USNS Apalachicola (T-EPF-13).

“Outside of the U.S., there have also been significant investments in AI. For instance, the U.K. invested £4m in 2020 for warship AI development projects, which will help warships to process data and provide crews with improved situational awareness,” Davies said. “Moreover, in 2017, China announced its next generation AI development plan, with a goal of becoming the world leader in the technology by 2030, and in 2020 the country unveiled a multi-purpose unmanned surface vessel, as well as reportedly developing AI-enabled submarines.”

Portsmouth Delivers Submarine USS California from Availability in Record Time

USS California (SSN 781) departs for sea trials June 6 after completing a scheduled maintenance period at the Portsmouth Naval Shipyard in Kittery, Maine. *U.S. NAVY / Jim Cleveland*

KITTERY, Maine – Portsmouth Naval Shipyard delivered Virginia-class attack submarine USS California (SSN 781) back to the fleet June 15 as the fastest availability of its kind since the Navy adjusted the Virginia-class maintenance cycle, said Bianca Mireles of the shipyard's public affairs office.

Virginia-class submarines currently undergo an extended docking selected restricted availability (EDSRA) at the six-year mark. Prior to 2015, the maintenance cycle was just four years.

Completion of California's maintenance availability displayed tremendous schedule acceleration following the initial impact of the pandemic, resulting in a record setting delivery.

California and her crew of 15 officers and more than 115 enlisted personnel arrived at PNS in May 2019. California Project Superintendent Dave Simoneau applauded his team and the ship's crew for their accomplishment.

"The workforce at Portsmouth Naval Shipyard and the crew of California have proven what teamwork, respect, and ownership can accomplish," said Simoneau. "The success achieved in maintaining the EDSRA schedule is the direct result of these men and women leaning in and owning it every day! They are the reason we are able to win the 'race to combat readiness' and return California to the fleet in record time to help protect our nation."

Throughout the availability, the team upheld Portsmouth's legacy of first-time quality. Shipyard Commander Capt. Daniel Ettlich commented on the team's commitment to excellence.

"There is immense pride in knowing PNS bought back time for fleet-readiness. It is a monumental accomplishment to return California to the seas, combat-ready and modernized, to support our national security despite the once-in-a-century obstacles brought forth by COVID-19. Our people took ownership to weather the storm and delivered on our commitment to support America's Navy," said Ettlich.

California is the seventh Navy ship, and first submarine, to be named after the Golden State. It is the eighth Virginia-class nuclear-powered submarine built to excel in anti-submarine warfare; anti-ship warfare; strike warfare; special operations; intelligence, surveillance, and reconnaissance; irregular warfare; and mine warfare missions. California was commissioned Oct. 29, 2011. California's motto is silentium est aureum (silence is golden), which pays tribute to both the submarine force's motto, the silent service, and California's state motto, the golden state.

Portsmouth Naval Shipyard is the Navy's center of excellence for fast attack submarine maintenance, modernization, and repair. The on-time or early completion of submarine maintenance availabilities is critical to maintaining warfighter readiness. As a field activity of NAVSEA, PNS is committed to maximizing fleet readiness by safely delivering first-time quality, on time, and on budget.

Coast Guard Repatriates 59 Migrants to Cuba

An unseaworthy migrant craft sits in front of the Coast Guard Cutter Isaac Mayo, 27 miles south of Long Key, Florida, June 9, 2021. A law enforcement team from the cutter interdicted 16 Cuban migrants from the craft. *U.S. COAST GUARD*

MIAMI – Coast Guard cutter Kathleen Moore and Charles Sexton crews repatriated 59 Cubans to Cuba, June 14 and 15, following four interdictions south of the Florida Keys, the Coast Guard 7th District said in a June 15 release.

A Coast Guard Cutter Isaac Mayo law enforcement team launched at approximately 3:30 p.m. June 9, after a good Samaritan reported seeing more than 10 people aboard an unseaworthy boat 27 miles south of Long Key. The law enforcement team interdicted 16 Cuban migrants. The migrants were transferred to the cutter and reported in good health. Eleven of the migrants were repatriated June 14 by the Coast Guard Cutter Kathleen Moore crew and five were repatriated June 15 by the Charles Sexton crew.

A Station Islamorada law enforcement team launched at approximately 1 p.m. June 9, after a Customs and Border Protection Air and Marine Operations crew reported an unseaworthy boat heading north from 20 miles east of Key Largo with four people aboard. The law enforcement team interdicted four Cuban migrants and transferred them to the cutter. The migrants were repatriated June 14 by the Kathleen Moore crew and reported in good health.

A Station Key West law enforcement team launched at approximately 12:30 p.m. June 10, after a good Samaritan reported more than 20 people signaling for help on an unseaworthy boat 40 miles north of Havana, Cuba. The law enforcement team interdicted 29 Cuban migrants and transferred

them to the cutter. One migrant was taken to shore for higher medical care and the remaining 28 were repatriated Monday by the Kathleen Moore crew, reporting in good health.

A Station Miami Beach law enforcement team launched at approximately 10 a.m. June 12, after a good Samaritan reported people aboard an unseaworthy craft 10 miles east of Elliot Key. The law enforcement team interdicted 11 Cuban migrants and transferred them to the cutter reporting in good health. The migrants were repatriated June 15 by the Charles Sexton crew.

“U.S. Coast Guard and partner agencies actively patrol the Straits of Florida. The U.S. Government strongly discourages attempts to illegally enter the United States by taking to the sea,” said Lt. Cmdr. Mario Gil, Coast Guard Liaison, U.S. Embassy Havana. “Taking to the sea on unseaworthy vessels is not only illegal, but highly dangerous, and attempts to transit these unforgiving waters often turn out deadly.”

Since Oct. 1, 2020, Coast Guard crews have interdicted 465 Cubans compared to:

5,396 Cuban migrants in Fiscal Year 2016
1,468 Cuban migrants in Fiscal Year 2017
259 Cuban migrants in Fiscal Year 2018
313 Cuban migrants in Fiscal Year 2019
49 Cuban migrants in Fiscal Year 2020

Once aboard a Coast Guard cutter, all migrants receive food, water, shelter and basic medical attention. Throughout the interdiction, Coast Guard crew members were equipped with personal protective equipment to minimize potential exposure to any possible case of COVID-19.

Ronald Reagan CSG Enters South China Sea

The Ronald Reagan Carrier Strike Group is operating in the South China Sea for the first time during its 2021 deployment, June 14. *U.S. NAVY*

SOUTH CHINA SEA – The Ronald Reagan Carrier Strike Group is operating in the South China Sea for the first time during its 2021 deployment, June 14, commander, Task Force 70 public affairs said in a release.

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 presence in the Indo-Pacific.

The carrier strike group includes the Navy's forward-deployed aircraft carrier USS Ronald Reagan (CVN 76), embarked Carrier Air Wing (CVW) 5, and embarked staffs of Task Force 70 and Destroyer Squadron (DESRON) 15, the Ticonderoga-class guided-missile cruiser USS Shiloh (CG 67), and the Arleigh Burke-class guided-missile destroyer USS Halsey (DDG 97).

"The South China Sea is pivotal to the free flow of commerce that fuels the economies of those nations committed to international law and rules based order," said Rear Adm. Will Pennington, commander, Ronald Reagan Carrier Strike Group. "It is both a privilege and a pleasure to work alongside our allies, partners, and joint service teammates to provide full spectrum support to key maritime commons and ensure all nations continue to benefit from a free and open Indo-Pacific region."

Most recently, the guided missile destroyer USS Curtis Wilbur (DDG 54) operated with Royal Australian Navy (RAN) Anzac-class frigate HMAS Ballarat (FFH 155) in the South China Sea, June 6-11. Wilbur and Ballarat demonstrated the Navy's commitment to work with like-minded allies and partners to preserve international order in the South China Sea.

"In my 23 years in the Navy I've had the pleasure of working with the allied and partner forces from around the world," said Senior Chief Operations Specialist Michael Ojeda, Assistant Operations, DESRON 15. "Integrating with other countries to conduct surface and undersea surveillance in support of our strike group operations serves to highlight that our allies reinforce our strategy in the Indo-Pacific region and around the world."

The strike group is committed to upholding U.S. security agreements with regional allies and partners, as well as demonstrating the capability of forward-deployed naval forces to quickly respond to any contingency across the region.

Upholding freedom of the seas in the South China Sea is vitally important where nearly a third of global maritime trade, roughly $3.5 trillion, a third of global crude oil, and half of global liquefied natural gas passes through the sea each year.

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. U.S. 7th Fleet conducts forward-deployed naval operations in support of U.S. national interests in the Indo-Pacific area of operations. As the U.S. Navy's largest forward-deployed fleet, 7th Fleet interacts with 35 other maritime nations to build partnerships that foster maritime security, promote stability, and prevent conflict.