Bahrain Conducts Fifth Sentinel Shield Exercise with IMSC; Includes Saildrone USV

Royal Bahrain Naval Force patrol boat RBNS Ahmed Al-Fateh (P20) sails in the Arabian Gulf during exercise Sentinel Shield on Aug. 23. *U.S. COAST GUARD / Electronics Technician 1st Class Jason Pickens*

MANAMA, Bahrain – Forces from Bahrain and the United States completed a joint exercise in the Arabian Gulf on Aug. 23, led by a nine-nation coalition staff based in the Middle East, NAVCENT Public Affairs said Aug. 25.

Royal Bahrain Naval Force ship RBNS Ahmed Al-Fateh (P20) and U.S. Coast Guard patrol boat USCGC Baranof (WPB 1318) participated in exercise Sentinel Shield with a Saildrone Explorer unmanned surface vessel from U.S. 5th Fleet.

Sentinel Shield is a monthly exercise series organized by the International Maritime Security Construct (IMSC) to enhance

communication and coordination among partner naval forces. This month's iteration was the first designed to integrate unmanned systems.

"The continued interoperability and coordination of U.S. and Bahraini naval assets are crucial to stability in the Arabian Gulf," said Lt. Vaughn Gehman, commanding officer of Baranof. "Integration of unmanned systems is a force-multiplier for IMSC and its ability to detect and deter malign activity."

IMSC was formed in July 2019 in response to increased threats to freedom of navigation for merchant mariners transiting international waters in the Middle East. Coalition Task Force Sentinel was established four months later to deter state-sponsored malign activity and reassure the merchant shipping industry in the Bab al-Mandeb and Strait of Hormuz.

The coalition is headquartered in Bahrain under U.S. 5th Fleet and includes forces from Albania, Bahrain, Estonia, Lithuania, Romania, Saudi Arabia, the United Arab Emirates, the United Kingdom and the United States.

"I was delighted to see our host nation participating in this month's exercise, and especially pleased to again see Bahrain leading the way in unmanned systems integration," said British Royal Navy Commodore Ben Aldous, commander of IMSC and CTF Sentinel.

In October, Bahrain was the first nation U.S. 5th Fleet partnered with after establishing a new unmanned systems and artificial intelligence task force. During a two-day training exercise, U.S. patrol craft and Bahrain Defense Force maritime assets sailed alongside Mantas T-12 unmanned surface vessels in the Arabian Gulf, marking the first time the platforms operated in regional waters.

"Incorporating unmanned systems into Sentinel Shield enables the coalition to plan for the future by developing and exercising concepts of employment that most effectively

utilize this new technology to benefit the Sentinel mission and strengthen our coalition," said Aldous.

Coast Guard Offloads $3.1M in Seized Cocaine, Transfers Custody of 8 Smugglers

The Coast Guard offloaded 330 pounds of seized cocaine and transferred custody of eights suspected smugglers to Caribbean Corridor Strike Force agents in San Juan, Puerto Rico Aug. 24.

U.S. COAST GUARD

SAN JUAN, Puerto Rico – The crew of the Coast Guard Cutter Legare and Caribbean Corridor Strike Force agents offloaded 330 pounds of seized cocaine Aug. 24 in San Juan, following the interdiction of a smuggling vessel near Puerto Rico, the Coast Guard 7th District said Aug. 25.

The eight men apprehended in this case claimed to be Dominican Republic nationals and are facing federal prosecution in Puerto Rico. The seized contraband has an estimated wholesale value of approximately $3.1 million.

Special Agents supporting the Caribbean Corridor Strike Force are leading the investigation into this case. The apprehended smugglers are facing federal prosecution in Puerto Rico on drug smuggling criminal charges of conspiracy to possess with intent to distribute a controlled substance aboard a vessel subject to the jurisdiction of the United States. The charges carry a minimum sentence of 10 years imprisonment and a maximum sentence of imprisonment for life.

During the late night hours of Aug. 16, the aircrew of a Customs and Border Protection Air and Marine multi-role enforcement aircraft detected a 25-foot suspect vessel north of Isabela, Puerto Rico. During the interdiction, the smugglers jettisoned multiple bales of suspected contraband into the water. The Coast Guard Cutter Joseph Doyle stopped the suspect vessel, apprehended eight men and recovered five bales of the jettisoned cargo.

“This interdiction is an example of how successful interagency cooperation can be through the use of our collective resources,” said Lt. Cmdr. Charles Wilson, cutter Joseph Doyle commanding officer. “Customs and Border Protection Caribbean Air Marine Branch and the Coast Guard worked seamlessly to detect and interdict this suspected narcotics trafficking operation before it reached the shores of Puerto Rico.”

The seized contraband and the apprehended men were transferred to the cutter Legare for their final transport to Puerto Rico.

DARPA’s NOMARS Program to Build, Test, Demonstrate First Unmanned Ship

A concept design for the NOMARS Defiant unmanned ship. *DARPA*

ARLINGTON, Va. – DARPA is moving into Phase 2 of the No Manning Required Ship (NOMARS) program, which seeks to build and demonstrate a revolutionary new medium unmanned surface vessel that can go to sea and perform missions with unprecedented reliability and availability, while carrying a significant payload, the agency said Aug. 22. DARPA selected Serco Inc.’s design to move forward at the conclusion of Phase 1.

NOMARS took a clean-sheet approach to ship design, holding to the requirement there will never be a human on board the

vessel while it is at sea, including during underway replenishment events. By eliminating all constraints and requirements associated with humans, NOMARS opened up the design space to novel ship configurations and capabilities that could never be considered for crewed vessels.

NOMARS is also pushing the boundaries on ship reliability. Because there is no crew on board to perform maintenance, NOMARS required new approaches for power generation, propulsion, machinery line-up, and control schemes to ensure continuous functionality throughout a long mission in all weather, temperature, and sea states.

“NOMARS plans to demonstrate a next-generation completely unmanned ship that will enable entirely new concepts of operations,” said Gregory Avicola, program manager in DARPA’s Tactical Technology Office. “We will enable methods of deploying and maintaining very large fleets of unmanned surface vessels that can serve as partners, across the globe, for the larger crewed combatants of the U.S. Navy.”

In Phase 1, Serco developed a new Design Space Exploration toolset that can evaluate spaces with a variety of parameters and outputs millions of ship designs to meet a diverse set of performance objectives and constraints. Serco used their DSX tool to create a set of ship designs ranging from 170-270 metric tons, then refined those into a single ship for the preliminary design review, which the company dubbed Defiant. In Phase 2, Serco will finalize ship design, build the ship and work through a series of rigorous testing activities before taking it to sea for a three-month demonstration event.

Defiant will be the first of its kind. The 210-metric ton medium USV-class ship aims to maximize performance, reliability, and maintenance efficiency while still carrying significant payload at tactically useful ranges. The goal is to achieve ultra-reliability objectives by integrating distributed hybrid power generation, podded propulsors and

high-capacity batteries.

A key philosophy of NOMARS is “graceful degradation,” which allows individual equipment to fail over time by having enough system-level redundancy to meet full system requirements at speeds of at least 15 knots after one year at sea. The major system components of the selected design are modularized, so repairs can be conducted with equipment typically found in yacht yards worldwide. This maintenance philosophy supports rapid turnaround, allowing the ships to spend a majority of their lifetime at sea performing missions.

NCMS to Test Ship Maintenance Tech in Navy’s New REPTX Event

ANN ARBOR, Mich. — NCMS will assist the U.S. Navy in keeping ships in top shape while at sea through the new Repair Technology Exercise (REPTX), taking place Aug. 22 through Sept. 2 at Naval Base Ventura County, the consortium said Aug. 24.

More than 60 technology suppliers are testing their products’ capacity to tackle real-world fleet maintenance challenges, including assessing and repairing potential battle damage during REPTX’s 12 days of technical demonstrations and field experiments aboard the Navy’s Self Defense Test Ship, an asset of Naval Surface Warfare Center, Port Hueneme Division..

REPTX offers a unique opportunity to evaluate innovative products and services that could potentially help Sailors carry out the repairs needed to keep them underway. Industry

and academic participants were identified and vetted via NCMS's engagement with its network of hundreds of innovative technology solutions providers.

"Our priorities as a warfare center are to deliver and sustain readiness, modernize and maintain the current fleet, and field the surface fleet of the future," said Capt. Andrew Hoffman, NSWC PHD commanding officer. "REPTX demonstrates these priorities by allowing both industry, government and academia to work side-by-side while exploring innovative maintenance concepts that we can rapidly deliver to our forward-deployed warfighters."

REPTX participants include private industry, academia and government that will demonstrate technologies designed to address four focus areas: visualization, command and control aids, forward manufacturing and expeditionary maintenance.

During REPTX, the technology suppliers will test their solutions on NSWC PHD's Self Defense Test Ship, a 563-foot-long decommissioned Spruance-class destroyer the Navy uses to evaluate naval weapons and emerging technologies.

Naval Sea Systems Command's Naval Systems Engineering and Logistics Directorate Technology Office selected 65 technologies to take part in the event, including unmanned aerial vehicles and submersibles, additive manufacturing equipment, ship-to-shore communication systems, inspection and repair tools, and above- and below-water visualization devices.

REPTX will immerse the technologies in a variety of shipboard scenarios, such as loss of lighting, an unidentified object on the hull, pipe corrosion and leakage, and damage to the ship's superstructure.

"The format will provide a realistic fielding environment, both pier-side and underway, allowing teams the chance to field, adjust, learn and retest their solutions," said Janice

Bryant, sustainment technology manager at Naval Systems Engineering and Logistics Directorate Technology Office and the sponsor of REPTX.

REPTX is part of the broader Advanced Naval Technology Exercise-Coastal Trident 2022, which began in June and runs to September, and which NSWC PHD organizes and aims to bolster port and maritime security through field experiments involving emerging technologies and training events with law enforcement and other first responders.

BAE Systems to Perform Extended Work aboard USS Ross

The Arleigh Burke-class guided-missile destroyer USS Ross (DDG

71) transits the Mediterranean Sea Sept. 3, 2018. *U.S. NAVY / Mass Communication Specialist 1st Class Ryan U. Kledzik*
NORFOLK, Va. – BAE Systems has received a $107.7 million contract from the U.S. Navy to modernize the guided-missile destroyer USS Ross (DDG 71), the company said Aug. 24.

Under this extended dry-docking selected restricted availability contract, the company will perform the modernization work at its Norfolk, Virginia shipyard. The contract includes options that, if exercised, would bring the cumulative value to $123.8 million.

BAE Systems will dry-dock USS Ross to perform maintenance on the underwater hull, repair the ship's main propulsion system, preserve internal ballast and fuel tanks and external superstructure and rehabilitate crew berthing and dining compartments. The modernization project is scheduled to take more than 500 days and be completed in April 2024. Once complete, the ship will be capable of serving in the fleet for another 10 years. The 16-year-old ship recently completed a seven-year operational period in Rota, Spain as a forward-deployed U.S. Navy combatant.

"This is an important job for our employees, subcontractors, and the Navy to accomplish," said Mike Bruneau, vice president and general manager of BAE Systems Norfolk Ship Repair. "We look forward to meeting the long-term maintenance goals for USS Ross to sustain the future capability and readiness of the ship."

The USS Ross was commissioned in June 1997. The ship is named after the first Medal of Honor recipient of World War II, Donald K. Ross. While serving aboard the battleship USS Nevada (BB 36) during the attack on Pearl Harbor on Dec. 7, 1941, Ross valiantly helped the badly damaged ship get underway during the attack. USS Ross is part of the Arleigh Burke class of destroyers.

Marine Corps Study on Body Composition Leads to Change

MARINE CORPS BASE QUANTICO, Va. – The U.S. Marine Corps' Training and Education Command, in collaboration with the United States Army Research Institute of Environmental Medicine, recently concluded a year-long study to evaluate current body composition standards and ensure service standards optimize health, performance, and fitness, Headquarters Marine Corps said in a release

Gen. David Berger, commandant of the Marine Corps, received the study's findings and made the following decisions: the performance exemption for Marines who score a 285 or higher on their fitness tests will remain in place. Prior to assigning Marines to the Body Composition Program, commanders will assess body composition using more advanced body composition methods effective Jan. 1, 2023; and a 1% increase in total allowable body fat for female Marines, also effective Jan. 1.

The Marine Corps will codify these changes via official messages in the coming months. This announcement is being published ahead of official and final changes to the policy because the Marine Corps recognizes needed change cannot wait.

"This study marks a milestone in understanding the health and performance of our Marines," said Berger. "Our primary focus in the Marine Corps is the individual Marine and this study is a pivot point. We will continue to learn and explore additional modifications to our body composition program."

This study was one of the most technologically advanced

studies on the topic since the 1980s, drawing participation from a diverse group of 2,173 Marines, including 1,435 men and 738 women, 196 of whom were postpartum. The study was conducted at three locations: Marine Corps Bases Quantico, Virginia; Camp Lejeune, North Carolina; and Camp Pendleton, California.

“Ultimately, this is about warfighting. We need to find the most practical, accurate, and unbiased method of measuring body composition to maintain a healthy, ready force,” said Berger. “In order to make changes, we have to understand the impacts and availability of our proposed alternative methods. This will take some time to get it right, but we owe it to our Marines to move quickly. We continue to make changes across the force that aim to better take care of our most important asset – our Marines.”

Every participant was first assessed utilizing methods that measure the size and proportions of the human body via height, weight, and the current service wide tape test.

Then, participants received three assessments that measure tissue density. The first assessment was a Dual Energy X-Ray Absorptiometry scan, the most accurate means to estimate body fat, lean body mass and bone density. The second assessment was a 3D body scan using a two-compartment model approach to assess fat and lean mass. The third method was through bioelectrical impedance analysis, which uses an imperceptible electrical current to estimate lean mass and fat mass.

Finally, the performance assessment, called the Counter Movement Jump, was conducted on a force plate designed to measure the forces and movement applied when conducting an upward jump.

Going forward, the Marine Corps will still conduct height and weight measurements with the accompanying tape test. The research concluded that the tape test correctly identifies

91.6% of male Marines and 92% of female Marines as over the allowable body fat. Under this new process, the 0.6% of male and 6.3% of female Marines who are erroneously identified as exceeding body fat standards by the tape test would be correctly identified within standards by completing the Dual Energy X-Ray Absorptiometry scan.

“Our research demonstrated the taping method is still a viable solution to determine if a Marine is within an optimal body composition range. However, we recognize that a more scientifically advanced method of determining body composition is required before a Marine is assigned to a program that could have career implications,” said LtGen. Kevin Iiams, commanding general, Training and Education Command.

Therefore, under this policy, Marines who are identified as over their allowable body fat percentage when taped will receive a DEXA or BIA scan to ensure body fat percentage accuracy prior to enrollment in the body composition program.

“We also recognized that male and female Marines’ body composition standards did not similarly compare to performance-related body fat. Female standards were leaner than the males,” said Iiams. “We have updated the maximum percentage allowed for females to reflect what the science told us was an equally-balanced and standardized body composition across the force.

“These are likely not the last changes to come for the body composition program,” said Iiams. “We are a learning organization and will continue to refine these important health and readiness-programs as we collect more data.”

Naval Station Newport Now Homeport for Two Coast Guard Cutters

U.S. Coast Guard Cutters Tahoma (WMEC 908) and Campbell (WMEC 909) sit moored at Naval Station Newport, Rhode Island, Aug. 19. Tahoma and Campbell were welcomed to Naval Station Newport during a change of homeport ceremony. *U.S. COAST GUARD / Petty Officer 3rd Class Briana Carter*

NEWPORT, R.I. – The Coast Guard held a joint change-of-homeport ceremony for USCGC Tahoma (WMEC 908) and USCGC Campbell (WMEC 909) Aug. 19 at Naval Station Newport, Rhode Island.

The Tahoma and Campbell are 270-foot Famous-class medium-endurance cutters previously based at the Portsmouth Naval Shipyard in Kittery, Maine. The relocation of these two cutters will allow the U.S. Navy to conduct infrastructure

upgrades as part of a Shipyard Infrastructure Optimization Program at the Portsmouth Naval Shipyard.

Adm. Linda L. Fagan, commandant of the U.S. Coast Guard, presided over the ceremony.

“For these two ships, this is actually a homecoming,” said Fagan. “Nine of the Coast Guard’s 270-foot medium endurance cutters, including the Tahoma and Campbell, were constructed right here in Rhode Island. These cutter’s new berths in Newport will provide a continued pathway for our crews to maintain geographic stability in southeastern New England while they conduct historic missions throughout the globe in support of the Atlantic Area commander.”

Attendees at today’s ceremony included Rhode Island Senators Jack Reed and Sheldon Whitehouse, Rep. David Cicilline, Newport Mayor Jeanne-Marie Napolitano, Capt. James McIver, commanding officer of Naval Station Newport, and other local officials.

“We are proud to welcome USCGC Tahoma and USCGC Campbell home to Naval Station Newport,” said McIver. “As fellow members of the United States’ maritime services, we look forward to the return of these units to their original birthplace here in Rhode Island and supporting them as they carry out global missions to meet the needs of our nation and the Joint Force.“

Tahoma is the third Coast Guard cutter to bear the name. Campbell is the sixth Coast Guard cutter to bear its name. Tahoma and Campbell are the eighth and ninth cutters, respectively, of 13 Famous-class cutters in service by the Coast Guard. Both cutters were commissioned in 1988 and are under the operational control of Coast Guard Atlantic Area.

New Coast Guard Cutter Douglas Denman Arrives in Alaska

The crew of Coast Guard Cutter Douglas Denman arrived at the cutter's new homeport in Ketchikan, Alaska, Aug. 19. *U.S. COAST GUARD*

KETCHIKAN, Alaska – The crew of Coast Guard Cutter Douglas Denman arrived in Ketchikan, Alaska on Aug. 19 after a 36-day transit from Key West, Florida, the Coast Guard 17th District said in a release.

Douglas Denman, the Coast Guard's 49th fast response cutter, traveled nearly 7,000 miles from the most southeastern city in the U.S. to the most southeastern city in Alaska, transiting through the Caribbean Sea, the Panama Canal and up the west coast of Central America and the U.S.

Following production of the ship in 2020, the first crewmember arrived in Ketchikan summer of 2021. Since then, the crew has undergone a year of administration and training in preparation to take ownership of the cutter. The engineering department alone attended a total of three months of school in addition to the crew's seven weeks of familiarity training in Lockport,

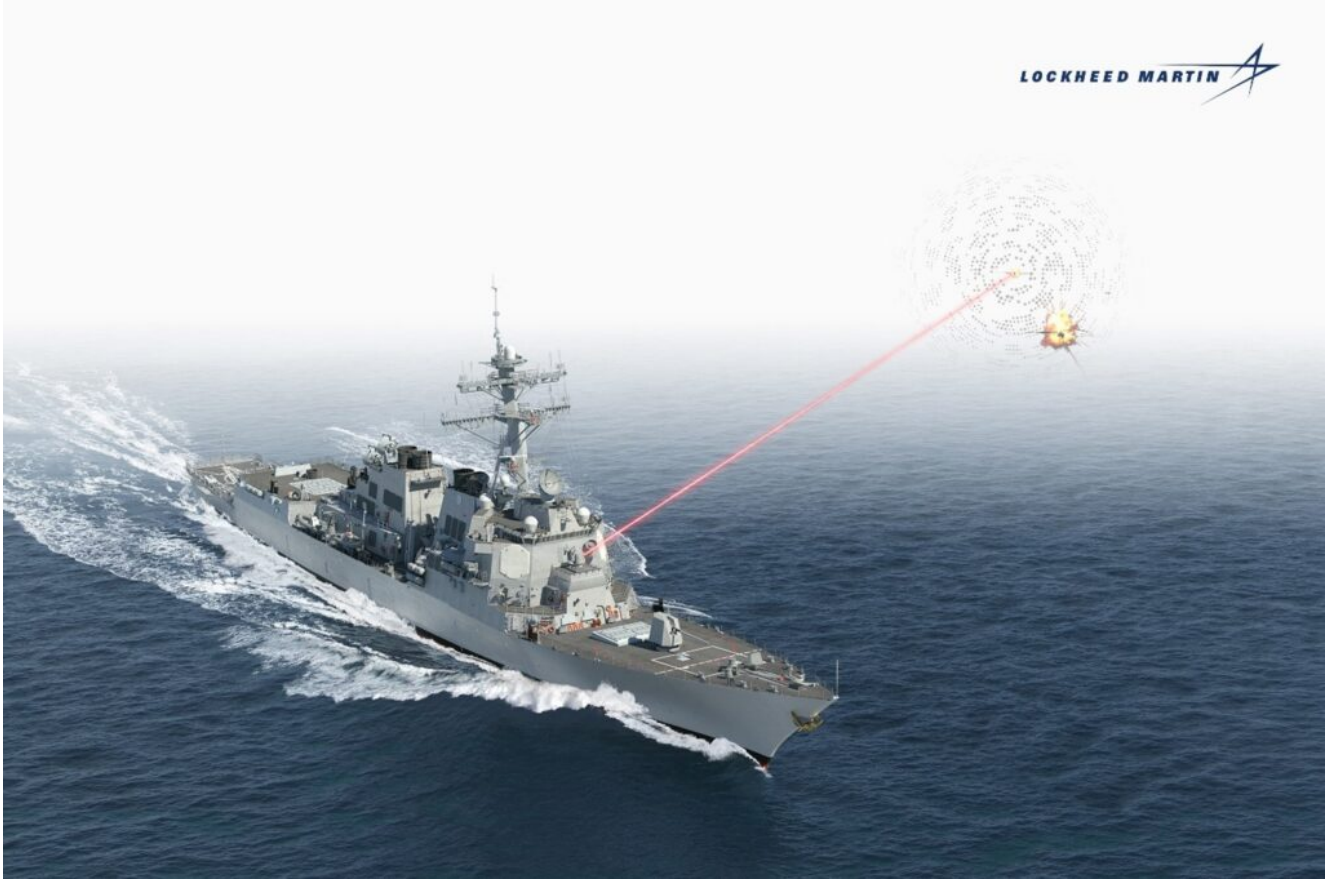
Louisiana, and seven weeks of post delivery availability phase in Key West.

“It’s been a long but extremely rewarding journey to get to this point,” said Chief Petty Officer Hayes Printy, the cutter’s engineering chief. “Seeing the crew’s growth throughout the process and being able to make this unit what we want is an experience I will cherish and not forget.”

The cutter will be commissioned at the end of September and fully operational in its area of responsibility in Southeast Alaska where the missions will include law enforcement, fisheries enforcement, search and rescue and national security.

The Douglas Denman is scheduled to be permanently homeported in Sitka, Alaska, upon completion of required shore infrastructure improvements.

Lockheed Martin Delivers Integrated Multi-Mission Laser Weapon System to The Navy



HELIOS provides directed energy capability to the Navy fleet. *LOCKHEED MARTIN*

SAN DIEGO – Lockheed Martin has delivered to the U.S. Navy a 60+ kW-class high energy laser with integrated optical-dazzler and surveillance (HELIOS), the first tactical laser weapon system to be integrated into existing ships and provide directed energy capability to the fleet, the company said Aug. 18.

Integrated and scalable by design, the multi-mission HELIOS system will provide tactically relevant laser weapon system warfighting capability as a key element of a layered defense architecture.

“Lockheed Martin and the U.S. Navy share a common vision and enthusiasm for developing and providing disruptive laser weapon systems,” said Rick Cordaro, vice president of Lockheed Martin Advanced Product Solutions. “HELIOS enhances the overall combat system effectiveness of the ship to deter future threats and provide additional protection for Sailors, and we understand we must provide scalable solutions

customized to the Navy’s priorities. HELIOS represents a solid foundation for incremental delivery of robust and powerful laser weapon system capabilities.”

HELIOS provides an additional layer of protection for the fleet with its deep magazine, low-cost per kill, speed of light delivery and precision response, the company said.

CNO Visits Spain, UK, Meets with Sailors, Focuses on Partnerships

Chief of Naval Operations Adm. Mike Gilday renders a salute as

the Royal Navy's guest of honor at the Royal Edinburgh Military Tattoo in Edinburgh, Scotland, Aug. 20. *U.S. NAVY / Capt. Gregory Leland*

EDINBURGH – Chief of Naval Operations Adm. Mike Gilday and his wife, Linda, visited Spain and the United Kingdom, Aug. 16-21 to meet with Sailors, government and military leaders, the CNO's public affairs office said Aug. 19.

The CNO spoke with U.S. Sailors, as well as service members assigned to allied and partner militaries in Rota, Spain, London and Faslane and Edinburgh, Scotland.

Gilday's visit to Rota coincided with the arrival of the guided-missile destroyer USS Bulkeley (DDG 84) to its new homeport, Naval Station Rota, Aug. 17. Bulkeley joins three other U.S. Navy destroyers that are part of Forward Deployed Naval Forces-Europe: USS Arleigh Burke (DDG 51), USS Paul Ignatius (DDG 117) and USS Roosevelt (DDG 80).

Gilday participated in a flag-raising ceremony alongside Admiral of the Spanish Fleet, Adm. Eugenio Díaz del Río Jaudenes, where together they hoisted the Spanish flag aboard Bulkeley.

Speaking afterward to media, Gilday explained the significance of presence and the strength of the partnership between the U.S. and Spanish navies.

"Spain remains one of our closest partners particularly in the maritime," said Gilday. "The global economy floats on seawater … the U.S. Navy's ability to have our destroyers forward-deployed in Spain is an exceptional opportunity for us to help keep sea lanes open, to work with closely with our allies and partners."

He later explained, "Our ships here in Rota are equipped with the most advanced capabilities and together with the Spanish navy we will continue to operate and sail strongly side by side to assure our NATO allies."

The Gildays also toured and spoke with Sailors assigned to Arleigh Burke.

“What you do every day is not insignificant. I am extremely proud of this ship and everything you are doing, the ship means nothing without the crew and this is an exceptionally talented and dedicated team of warfighters,” Gilday said while speaking to the Sailors.

Gilday began his U.K. engagements in London, where he was the keynote speaker at the dedication ceremony of the USS Osprey (AM 56) bell at the United States Embassy. USS Osprey was a Raven-class minesweeper that supported the invasion of Normandy, Operation Overlord. The ship struck an enemy mine the night before the invasion of Normandy while clearing the channel for the invasion. Six members of the crew died, becoming among the first of D-Day casualties.

Gilday also visited the London Tech Bridge, where he exchanged views on the importance of this innovation hub and the partnership and collaboration with the U.S.-U.K. military, industry, academia and small businesses.

“Collaborating, sharing information, being interoperable and truly interchangeable strengthens our ability to prevail in conflict and bolsters integrated deterrence against potential adversaries,” said Gilday. “We must continue to pursue innovative solutions, experiment and put capabilities in the hands of warfighters quickly if we want to maintain warfighting advantages.”

During a visit to HM Naval Base Clyde at Faslane, Scotland, a logistical base for warships and submarines operating in European waters, he observed Valiant Jetty which was built to support operations by the latest Astute-class Royal Navy attack submarines. Gilday spoke with U.S. Navy Sailors who are training with Royal Navy sailors, toured cutting-edge boats, and also congratulated newly qualified Royal Navy British

submariners who received their qualifications and pins.

Gilday, the Royal Navy’s guest of honor, attended the Royal Edinburgh Military Tattoo, an annual series of artistic performances by 900 performers, including British armed forces, commonwealth and international military bands from across the globe.

The focus of Gilday’s visit to the U.K. was to advance and further strengthen the maritime partnership and work toward becoming truly interchangeable. Throughout his visit, Gilday met with Royal Navy Adm. Sir Ben Key, First Sea Lord and chief of the Naval Staff of the United Kingdom.