Exercise Arctic Guardian 2021 to Enhance Circumpolar Collaboration

Petty Officer 2nd Class Lauren Butnor, a crewmember aboard the Coast Guard Cutter Polar Star (WAGB 10), climbs aboard Polar Star after participating in ice rescue training in the Bering Strait, Wednesday, Jan. 20, 2020. *U.S. COAST GUARD / Petty Officer 1st Class Cynthia Oldham*

WASHINGTON – The Emergency Prevention, Preparedness and Response (EPPR) Working Group of the Arctic Council and the Arctic Coast Guard Forum (ACGF) will hold a joint online emergency response exercise from April 12-14, hosted by the Environment Agency of Iceland, the Polar Institute of the Wilson center said in an April 12 release.

The goal of the exercise is to improve Arctic nations' capability to respond to maritime incidents requiring joint search and rescue (SAR) and marine environmental response

operations.

The Arctic Guardian 2021 exercise is designed to improve collaboration between Arctic Council and ACGF member states who are signatories of the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA) and the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (Arctic SAR Agreement). The collaborative exercise will provide public and private operational and policy-oriented SAR and marine environmental response organizations with a means to discuss their communication and coordination processes in the event of a marine SAR and/or oil spill incident in the Arctic.

The Arctic Guardian 2021 exercise follows a scenario where an oil tanker and an expeditionary cruise vessel collide off the North coast of Iceland. Originally intended as a live exercise following a table-top exercise in fall 2020, the virtual format will ensure that all stakeholders can participate, and the global pandemic does not hinder Arctic emergency preparedness.

“As maritime activity in the Arctic increases, it elevates the risk of serious incidents and the need to plan and prepare for emergency and pollution responses,” said Jens Peter Holst-Andersen, chair of EPPR. “It is crucial to test and better understand the challenges of a coordinated response that involves many different players in a safe environment. It allows us to not only test response activities, but also build and strengthen the relationships between these diverse players, which are incredibly important at the time of real emergency.”

“As we know, disasters can strike without any previous indication, anytime, anywhere. The Arctic and adjacent regions are incredibly challenging,” said RADM Georg Lárusson, chair of the ACGF and director general of the Icelandic Coast Guard. “Therefore, we have to exercise and prepare for major

incidents, emphasizing harsh weather conditions, long distances involved and limited infrastructure. That is precisely the purpose of the Arctic Guardian exercise and workshop. We share and cooperate to battle these elements to make the area safer for the inhabitants and guests."

The Arctic Guardian 2021 exercise will engage stakeholders in Iceland, representatives from other Arctic States, key non-government organizations and industry actors involved in search and rescue and marine environmental response. The Wilson Center's Polar Institute will provide overarching facilitation support, panel moderation, and contribute to exercise outcomes. "The Polar Institute team is pleased and honored to participate in this important international effort in support of the ACGF, the Arctic Council, and EPPR as they address the shared challenges brought about by a changing Arctic," said Dr. Mike Sfraga, director of the Polar Institute. The entities jointly designing and organizing the exercise include ACGF Combined Operations Working Group (COWG), EPPR MOSPA Joint Design Team and the Environment Agency of Iceland.

Following the exercise, an evaluation team will develop an after-action report to document lessons learned and possible areas for improvement in regard to preparedness and response capabilities and processes across the Arctic States in relation to SAR and marine environmental response.

Norway's First P-8A Aircraft Moves into Assembly

Norway’s first P-8A Poseidon aircraft is moved from a rail car through the air to the first step of the assembly process, the Fuselage Systems Installation tool, in Renton, Washington. *BOEING*

RENTON, Wash. – The first P-8A Poseidon fuselage for Norway arrived April 12 at Boeing facilities in Renton, Washington, from Spirit AeroSystems in Wichita, Kansas, marking a major milestone in the production of the first of five Poseidons for the Royal Norwegian Air Force.

A derivative of the Boeing 737 Next-Generation commercial aircraft, the P-8 is first assembled at Boeing Commercial Airplanes’ 737 production line, where the fuselage receives additional wiring and systems needed to support military components, equipment and operation. The aircraft is then delivered to Boeing’s Defense, Space & Security unit for the installation of military systems, testing and delivery to military customers.

“Boeing uses a proven in-line production process to efficiently build the aircraft,” said Christian Thomsen, P-8A

Europe program manager. “Implementing established best practices and common, commercial production-system tools enables the team to reduce flow time and cost while ensuring quality and on-time delivery to our customers.”

Norway is expected to receive its first P-8 later this year. In total, five P-8s will eventually replace Norway’s current fleet of six P-3 Orions and three DA-20 Jet Falcons and will provide advanced capabilities to maintain situational awareness in neighboring waters on and below the surface of the ocean.

To date, Boeing has delivered 104 P-8 aircraft to the U.S. Navy and customers in Australia, India and the United Kingdom.

Cutter Kimball Returns Home from Expeditionary Patrol in the Pacific

The crew of the Coast Guard Cutter Kimball (WMSL 756) underway in the Pacific, April 4, 2021. The Kimball was conducting an expeditionary patrol supporting Operation Blue Pacific, Op Rai Balang, and Op Aloha Shield. *U.S. COAST GUARD*

HONOLULU — The crew of the Coast Guard Cutter Kimball (WMSL 756) returned to Honolulu April 9 after completing an expeditionary patrol supporting Operation Blue Pacific, Operation Rai Balang and Operation Aloha Shield in the Pacific, the Coast Guard 14th District said in an April 9 release.

During the 82-day patrol, the cutter's crew worked closely with partners and allied nations on numerous missions ranging from search and rescue to the prevention of illegal, unreported, and unregulated fishing (IUU) while promoting stability and security throughout the region.

"I'm tremendously proud of my crew's exceptional performance, especially considering how their dedication and teamwork

allowed them to overcome the many challenges associated with operating by ourselves for long periods of time in remote locations and the difficulties created by the global pandemic," said Capt. Holly Harrison, the Kimball's commanding officer. "They adapted and overcame every obstacle and challenge put in their way with ease, exactly what you'd expect from our phenomenal Coast Guardsmen and women."

One of the main goals of the 20,000 nautical-mile patrol was to assist the United States' partners in the region with combating IUU.

Throughout the deployment the cutter's crew worked closely with the Pacific Islands Forum Fisheries Agency (FFA) during Op Rai Balang, a coordinated effort between partners in the region to combat IUU, while also enforcing Western and Central Fisheries Commission regulations on the high seas to protect the region's fish stocks.

Fish stocks are a vital renewable resource for many nations in the Pacific. Because of the migratory nature of fish, efforts towards their conservation requires teamwork between the partner nations.

The multi-million-dollar IUU fishing industry represents a direct threat to the partners efforts to ensure these resources remain sustainable for years to come and throughout the patrol the crew of the Kimball worked with the governments of the Solomon Islands, Federated States of Micronesia, and Papau New Guinea to strengthen domain awareness and resource security within the nation's economic exclusive zones.

During the patrol, the crew queried 21 foreign fishing vessels and boarded six, generating vital information reports for the partners in their efforts to combat IUU.

“The National Security Cutters bring a capacity and capability into the Coast Guard which are truly game changing when it comes to curbing IUU in the Pacific,” said Rear Adm. Matthew Sibley, commander, Coast Guard 14th District. “Patrols such as the Kimball’s display these cutters ability to cover large swaths of the Pacific and support our partners in joint conservation efforts while contributing to the overall stability of the region.”

The Kimball is one of the Coast Guard’s newer 420-foot Legend-class National Security Cutter and boasts a wide array of modern capabilities helping the crew to complete their varied missions.

Throughout the patrol, the crew used the cutter’s ability to deploy unmanned aircraft systems (UAS) to collect observation reports on vessels of interest which were shared with Maritime Security Advisors and the FFA Regional Fisheries Surveillance Center.

The UAS was also utilized during both day and night searches for a missing mariner southwest of Guam, displaying the versatility of the new technology and its potential in multiple types of missions.

Another key goal of the patrol was to increase interoperability between the Coast Guard and partners in the region.

The Kimball’s crew participated in a number of exercises with partners in the region, including training with a Royal Australian Navy Sea Dragon aircraft crew during the FFA Op Rai Balang, joint interdiction training with the Japan coast guard ship Akitsushima, and an exercise with the USS Tulsa.

“Over the past 82-days, Kimball’s crew conducted joint operations with the Japanese coast guard, Royal Australian

Navy, Pacific Islands Forum Fisheries Agency and U.S. Navy." said Harrison. "In each operation, we were thoroughly impressed with our partners' professionalism, skill, and commitment to Oceania and regional security."

Curtiss-Wright Awarded Contract to Support Ford-Class CVN Elevators

USS Gerald R. Ford (CVN 78) transits the Atlantic Ocean March 20, 2021. *U.S. NAVY / Seaman Jackson Adkins*

SHELBY, N.C. – Curtiss-Wright Actuation Division has been awarded a contract to provide Exlar Electro-Mechanical Actuators to Federal Equipment Co. (FEC)

to support its weapons elevator systems for the Ford-class aircraft carrier program, the company said in a release.

Exlar actuators are used in several other mission critical areas on the Ford-class carriers, including the Jet Blast Defector, Integrated Catapult Control Station and Landing Signal Officer station actuation systems.

Exlar's field-proven, commercial off-the-shelf (COTS) actuation products are used in a variety of industries and applications providing robust, reliable and energy efficient solutions. These COTS and modified COTS products and technologies are used in numerous naval and ground defense applications, as well as offering alternatives to fluid power options while providing lower total cost of ownership through energy efficiency, lower maintenance costs and integration with automated control systems.

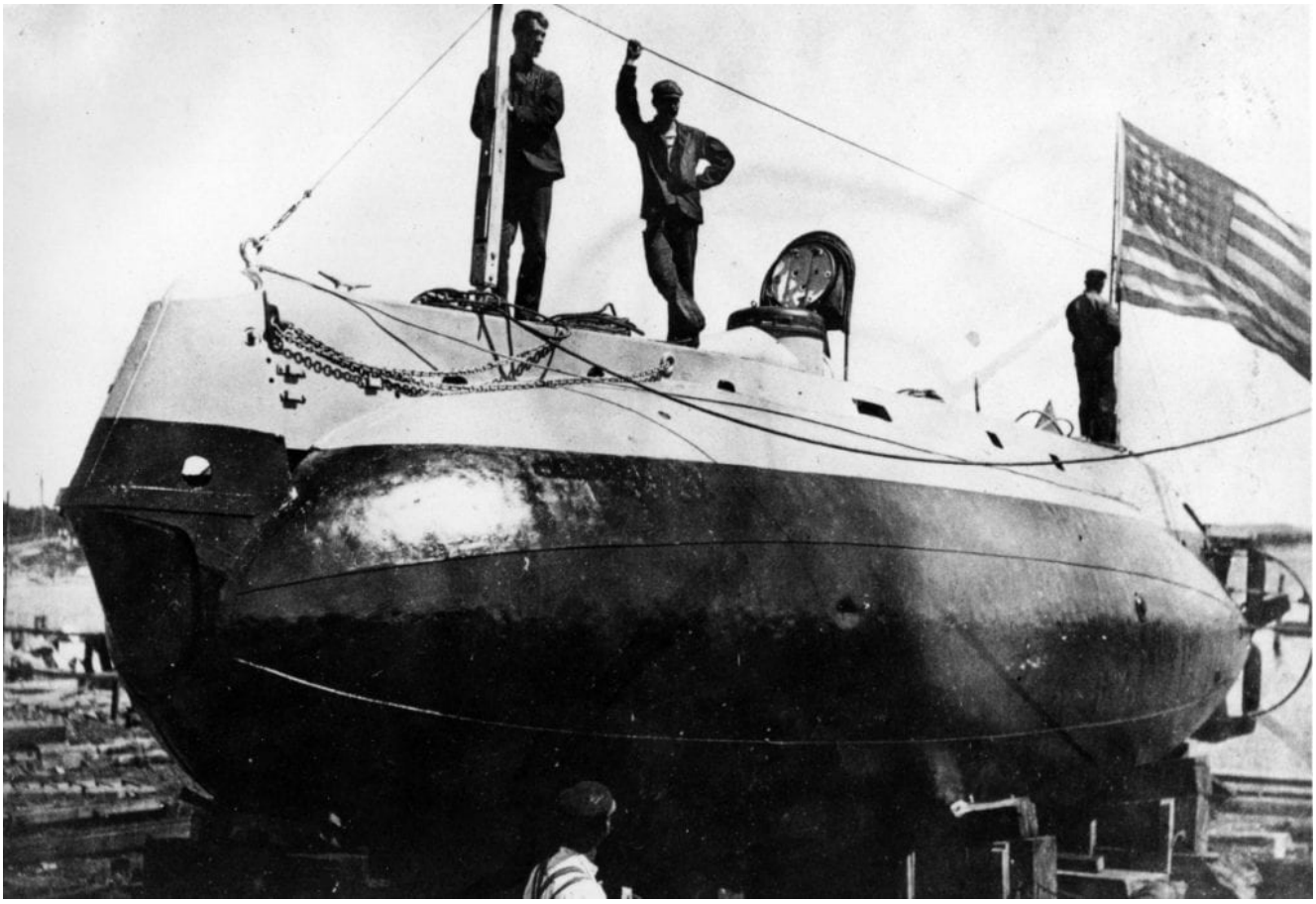
FEC also uses the Exlar GSM Series integrated products as lock actuators for the weapons elevator systems they provide to the Ford carrier program on their CVN-78 and CVN-79 ships.

"We are proud to be able to continue to support both FEC, the U.S. Navy and its shipbuilder as the Navy modernizes its carrier fleet," said Phil Bowker, Curtiss-Wright senior general manager, Actuation Division.

Exlar is a business unit of Curtiss-Wright's Actuation Division.

Submarine Day Observance

Calls Attention to Growing Opportunities in Submarine Construction



USS Holland (SS-1), the U.S. Navy's first commissioned submarine, joined the fleet in 1900. *SUBMARINE FORCE LIBRARY & MUSEUM COLLECTION*

The Southeastern New England Defense Industry Alliance (SENEDIA) is recognizing National Submarine Day with a "TechTalk" featuring senior leaders from General Dynamics Electric Boat, as well highlighting men and women in the region who are employed in submarine construction related careers.

"Southeastern New England is the nation's hub for submarine shipbuilding and undersea technology, and although the COVID-19 pandemic posed challenges for all businesses, our industry remains strong, with more rewarding opportunities

ahead for those interested in the high-wage, high-growth, high-demand career pathways that are available across the defense landscape," said Molly Donohue Magee, SENEDIA's executive director. "National Submarine Day is a great opportunity for our colleagues across the industry to come together to celebrate our successes, share innovation, and grow the talent pipeline we need to continue to thrive."

"National Submarine Day is an opportunity to remember the origins of the nation's submarine shipbuilding industry, and to recognize the critical role that submarines have played in our national defense," Magee said.

National Submarine Day, normally celebrated on April 11, commemorates the acquisition of the U.S. Navy's first modern submarine, USS Holland (SS-1) in 1900. She was designed by inventor John Phillip Holland and built in Elizabeth, New Jersey, and commissioned in the US Navy on Oct. 12, 1900, at Newport, Rhode Island.

Holland was the first submarine with the seakeeping ability and endurance to conduct long transits, and the power to run submerged for any considerable distance. She had a six-man crew and could dive and maintain a depth of 75 feet. After the Navy purchased and evaluated USS Holland, they ordered six more of her type.

The inventor's company, the Holland Torpedo Boat Company, later became Electric Boat.

General Dynamic Electric Boat executives, Sean Davies, vice president of Quonset Operations, and Andrew Bond, vice president of human resources, presented a virtual "TechTalk" on the scope, magnitude and growth of the U.S. Navy's Columbia and Virginia-class submarine programs.

Electric Boat is experiencing significant hiring of trade and industrial skilled employees and growth and expansion at Electric Boat. In 2020, EB hired 2,000 people, mostly in the

second half of the year due to earlier COVID limitations. In 2021, Bond said EB expects to hire 2,400 engineers, tradesmen and support personnel.

A network of partnerships of government, academic, nonprofit and business organization in Connecticut and Rhode Island are helping develop the qualified workforce that design and build the submarines of today and the future.

“We will put more than 1,000 people through those pipelines in Rhode Island, and we have a parallel pipeline in Connecticut,” said Davies. “Our training programs used to focus on either Connecticut or Rhode Island, but SENEDIA brings a cross state and region perspective, so we can expand into Massachusetts and further into New England.”

According to Magee, SENEDIA membership includes 130 companies, mostly in southeastern new England, but beyond as well supporting submarine construction and undersea technology. The organization has a contract from the DoD Industrial Base and Sustainment Office focused on submarine workforce development, specifically related to the trades and industrial skilled employees.

“The shipyards offer high-tech and high-wage jobs, and they are in high demand,” she said. “The Navy wants to make sure there is a strong pipeline of current and future workers for submarine construction and other naval shipbuilding needs. We can solve the need today, but we have to make sure we have the pipeline for tomorrow.”

Admiral: Artificial Intelligence Will Be A Wingman, Not a Lead

Sailors assigned to the “Wildcards” of Helicopter Sea Combat Squadron (HSC) 23 prepare an MQ-8B unmanned helicopter for routine flight operations on the flight deck of the Independence-variant littoral combat ship USS Gabrielle Giffords (LCS 10), July 7, 2020. *U.S. NAVY / Mass Communication Specialist 2nd Class Brenton Poyser*

ARLINGTON, Va. — The Navy is very much on board for integrating artificial intelligence (AI) and machine learning into its networks, but human decision makers must always be part of the decision process in warfighting, an admiral said.

“From a warfighting perspective, artificial intelligence subsets would be enablers or augments to the human in the loop,” said Rear Adm. Paul Spedero Jr., director, Fleet Integrated Readiness and Analysis, U.S. Fleet Forces Command,

speaking April 8 during a Navy League webinar sponsored by Deloitte. “That has always been our approach. I don’t see that changing. There are some things that can’t be replaced; the experience of a seasoned warfighter in the field being able to assess things that a machine – no matter how much we teach it – may never be able to pick up on. There’s always going to be a necessity for [experience-based decision making]. That necessity for war fighting will never go away – to have a human in the loop.

“AI will be our wingmen,” he said. “It will not be the lead in a fight.”

Spedero said in the world of data analysis, his current focus, there “certainly is a place for AI, particularly machine learning, as we try to get to that predictive and prescriptive level of data analytics. We’re entering into mathematical equations and regressions that just can’t be done manually and algorithms you want [machines] to learn with demonstrated performance and adjust the coefficients within that [so] you can tighten your tolerance and lower your upper and lower limits of variance get closer to each other.”

The admiral, who is on the staff of Adm. Chris Grady, said his office is using data analytics “to identify barriers to force readiness,” to make sure the Optimized Fleet Readiness Plan is working correctly, continually assessing it “to get it right.” He is working to determine the metrics down to the unit level that will define what the readiness of the force is.

Also speaking in the webinar was Dr. Patrick O’Connell, chief digital transformation officer for the Navy, who said as the Navy confronts the challenge of processing massive amounts of data to make decisions, transformation works best when it it is both pushed down from the top of the organization and pushed up from the bottom. Institutional culture is one of the hardest things to change when trying to implement a revolutionary transformation, he said.

Cutter Returns Home following Eastern Pacific Law-Enforcement Patrol

The USCGC Alert (WMEC 127) and its crew return to homeport in Astoria, Oregon, Wednesday, April 7, 2021, following a 63-day patrol that began in early February. The cutter and crew patrolled off the coast of Mexico and in the vicinity of the United States-Mexico Maritime Boundary Line enforcing international laws and treaties to disrupt illegal narcotics and migrant smuggling. U.S. Coast Guard photo by Petty Officer 1st Class Cynthia Oldham.

ASTORIA, Ore. – The Coast Guard Cutter Alert (WMEC 630) returned home to Astoria, Oregon, April 7 following a 63-day

counterdrug patrol in the Eastern Pacific Ocean, the Coast Guard Pacific Area said in a release.

Working in conjunction with different Coast Guard and Mexican law enforcement agencies, Alert's crew disrupted more than 2,100 pounds of cocaine, valued at over $41 million wholesale, from entering the United States.

The Oregon-based cutter and crew patrolled international waters off the coast of Mexico and the United States-Mexico Maritime Boundary Line, enforcing international laws and treaties throughout their deployment and disrupting the flow of illegal narcotics and migrant smuggling.

While on patrol, a maritime patrol aircraft spotted a suspected smuggling vessel. Alert's crews launched both cutter small boats and pursued the vessel until it ran out of fuel. The case was transferred to Mexican law enforcement officials from the Secretaría de Marina (SEMAR).

Through the collaborative and international team effort, the smugglers were successfully apprehended, and 1,600 pounds of illegal narcotics seized by Mexican Law Enforcement.

Within 48 hours, Alert's crew identified another law enforcement case for interdiction and changed course to intercept the suspected smuggling vessel. After a multi-hour pursuit, the crew successfully interdicted approximately 550 pounds of cocaine and apprehended six suspected narco-traffickers for prosecution in the United States.

Numerous U.S. agencies from the Departments of Defense, Justice and Homeland Security cooperated in the effort to combat transnational organized crime. The Coast Guard, Navy, Customs and Border Protection, FBI, Drug Enforcement Administration, and Immigration and Customs Enforcement, along with allied and international partner agencies, play a role in counter-drug operations.

Alert’s crew transferred the seized narcotics and suspected drug traffickers to the Department of Justice, via Coast Guard Station San Diego March 1 before steaming north to complete their three-week Tailored Ship Training Assessment, a bi-annual assessment designed to evaluate the cutter’s training teams and operational readiness.

“Once again, the crew of Alert was able to overcome the challenges of the COVID-19 pandemic and equipment failures on a 50-year-old ship to execute a wide range of Coast Guard missions from the US-Canada Border to the Mexico-Guatemala border over a two-month period,” said Cmdr. Tyson Scofield, Alert’s commanding officer. “Overall, Coast Guard Cutter Alert successfully completed a variety of operations through the combined effort of every member of the crew.”

While patrolling the Eastern Pacific, Alert’s watchstanders identified a sea turtle entangled in fishing debris. The cutter maneuvered into position and launched its small boat to help the endangered sea animal, ultimately setting the sea turtle free from the entwined debris. Marine environmental protection is a statutory mission of the Coast Guard and every year approximately 300 sea turtles are saved by the Coast Guard.

“Marine life has always had a special place in my heart. When the opportunity to save a turtle arose, I was beyond excited to help,” said Petty Officer Third Class Timothy Waters who was aboard the small board to help free the entangled sea turtle. “I am honored to have done something so small that contributes to something much larger than me.”

VTG Awarded Navy Contract to Modernize Combat Systems Across the Fleet

VTG has been awarded a $188 million Navy contract to help modernize combat systems across the fleet, including the Aegis Combat System, shown here in 2017 undergoing a test on the guided-missile cruiser USS Mobile Bay (CG 53). *U.S NAVY Mass Communication Specialist 1st Class Chad M. Butler*

CHANTILLY, Va. – VTG has been awarded the Technical Insertion 16 Sustainment, Installation, Procurement and Engineering Services contract by the Naval Surface Warfare Center Port Hueneme Division, a field activity of the Naval Sea Systems Command (NAVSEA), the company said in an April 7 release. The indefinite delivery, indefinite quantity contract has a potential value of $188 million and a five-year period of performance.

“VTG has a proud legacy of closely collaborating with the Navy

to engineer the next generation of sea power," said John Hassoun, VTG president and chief executive officer. "The TI16 program enables VTG to build upon that legacy, expanding our technical expertise, strengthening our partnership with NSWC Port Hueneme and NAVSEA, and – most importantly – modernizing the fleet."

The TI16 program is the U.S. Navy's enterprise approach to modernizing combat systems across the surface fleet, most notably the Aegis Combat System, and includes all cruisers and destroyers, aircraft carriers, and amphibious ships. TI16 also enables the Navy to introduce the latest commercial off-the-shelf technologies and open architecture designs into its combat systems.

VTG will leverage its robust, full-lifecycle combat-systems engineering capabilities to fulfill TI16 program requirements. The company currently provides prime contract warfare, control, and C5I engineering services to the NAVSEA Naval Sea Systems Engineering Directorate and has over 50 years of experience installing and integrating advanced C5ISR systems aboard every existing U.S. Navy surface ship and submarine class.

Most recently, VTG completed the successful installation and integration of the ODIN directed-energy laser weapon system aboard two Arleigh Burke-class destroyers. The company will also leverage its growing digital and software engineering capabilities. Earlier this month, VTG announced that it had begun work on a prime contract to develop the future state of the Navy Operational Architecture and to optimize fleet interoperability. The company also introduced the VTG Battle Lab, an industry-integrated model-based systems engineering environment for next-generation warfare systems.

Elbit Systems Completes the Acquisition of Sonobouy Manufacturer Sparton Corp.

An artist’s conception of a P-8A aircraft dropping Sparton-built sonobuoys. *ELBIT SYSTEMS OF AMERICA*

HAIFA, Israel – Elbit Systems announced April 6 its U.S. subsidiary, Elbit Systems of America, completed the acquisition of Sparton Corp. from an affiliate of Cerberus Capital Management for $380 million. The closing follows

receipt of all the required approvals, including U.S. government and regulatory approvals.

Headquartered in De Leon Springs, Florida, U.S., Sparton is a premier developer, producer and supplier of systems supporting undersea warfare for the U.S. Navy and allied military forces. Sparton is well-known as a manufacturer od sonobuoys for anti-submarine search and tracking by aircraft.

"The growing importance of the maritime arena and the market position and technological strength of Sparton make this acquisition significant to our long-term growth strategy, with a particular focus on the U.S. We believe that the completion of this acquisition will be beneficial for both Elbit Systems' and Sparton's employees and customers," said Bezhalel "Butzi" Machlis, Elbit Systems president and chief executive officer.

Northrop Grumman's Optionally Manned Firebird Demonstrates Operational Flexibility

Northrop Grumman’s optionally manned Firebird, which flew to various locations around the United States to showcase its flexibility and ability to fly in national airspace. *NORTHROP GRUMMAN*

SAN DIEGO – Northrop Grumman Corp.’s Firebird multi-sensor aircraft showcased the versatility of the optionally manned autonomous system as it flew to various locations across the United States last month, the company said in an April 6 release.

The ability of Firebird to be flown manned through national airspace is a demonstration of its unique operational flexibility for self-deployment and its rapid relocation ability to adapt to specific user needs and operational requirements.

The company flew Firebird almost 9,000 miles around the US with stops in Dayton, Ohio, Washington D.C., Patuxent River, Maryland, as well as Tampa, Miami and Key West, Florida.

“Our flights showcased one of its key differentiators – the

ability to position the system in a manned configuration, then convert to autonomous operations for persistent ISR in under two hours," said Jane Bishop, vice president and general manager, autonomous systems, Northrop Grumman. "At each stop, plane-side briefings provided customers the opportunity to see first-hand the operational versatility of the platform, its large sensor bay, and rapid configurability for changing mission needs."

Firebird is a medium-altitude, long-endurance unmanned aircraft system designed for flexibility and affordability. Customers can install new payloads in as little as one day and swap payloads in 30 minutes, making the system suitable for numerous domains and missions.

The flights concluded in Key West, where the team conducted a series of manned maritime operational events that included a four-sensor package containing two high-definition electro-optical sensors, a maritime configured multi-spectral sensor for small target detection and an Automatic Information System receiver.