Two U.S. Navy carriers join Japan destroyer on Multi-Large Deck Event in Philippine Sea

Release from Commander, U.S. 7th Fleet

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By Carl Vinson Carrier Strike Group and Ronald Reagan Carrier Strike Group Public Affairs

PHILIPPINE SEA – The Carl Vinson Carrier Strike Group, Ronald Reagan Carrier Strike Group and the Japan Maritime Self-Defense Force (JMSDF) conclude a Multi-Large Deck Event (MLDE) in the Philippine Sea, Nov. 4-8, 2023.

MLDE provided the two maritime forces an opportunity to engage in joint operations to include enhanced maritime communication operations, air warfare operations and cross-deck flight operations to strengthen maritime integrated-at-sea operations

and combat readiness.

The event saw the participation of U.S. Navy Carrier Strike Groups, led by their flagships USS Carl Vinson (CVN 70) of Carrier Strike Group (CSG) 1, USS Ronald Reagan (CVN 76) of Carrier Strike Group (CSG) 5, and JMSDF's Hyuga-class helicopter destroyer JS Hyuga (DDH 181).

"Our ability to rapidly aggregate maritime forces and work collectively alongside the Ronald Reagan strike group and Japan Maritime Self-Defense Force enhances our combined readiness," said Rear Adm. Carlos Sardiello, commander, CSG 1. "Multi-Large Deck Event demonstrates collective resolve by rehearsing with our Allies as an assurance of our commitment to regional security and stability. It is also a symbol of a willingness to extend a helping hand of partnership to willing and likeminded nations."

The ships and aircraft of the two naval forces, with more than 10,000 Sailors, conducted coordinated surface and air operations in a complex maritime environment to demonstrate the U.S. Indo-Pacific Command Joint Force's ability to deliver a powerful maritime force.

"Through the exercise, we improved our tactical capabilities and interoperability with the U.S. Navy," said JMSDF Rear Adm. Kazushi Yokota, commander of Escort Flotilla 3. "The Japan-U.S. Alliance is essential not only for the defense of Japan, but also for peace and prosperity of the Indo-Pacific region."

Coordinated maritime engagements and operations in the Philippine Sea are part of the U.S. Navy's routine presence in the Indo-Pacific. U.S. naval forces, with our network of partners and Alliances, are indispensable to ensuring maritime security and the flow of unimpeded lawful commerce in the region.

"It's a testament to the strong relations we maintain with

like-minded Allies across the region—and the world—that we are able to bring together a tightly coordinated and united international force like this," said Rear Adm. Pat Hannifin, commander of Task Force 70 and CSG 5."

The last time CSG 1 participated in a large deck event dates back to January 2022 in the South China Sea with the Abraham Lincoln Carrier Strike Group.

In June, CSG 5 joined USS Nimitz (CVN 68) and JMSDF helicopter destroyer JS Izumo (DDH 183) for multi-large deck training in the Western Pacific alongside surface ships from the French and Royal Canadian navies.

CSG 1 consists of Nimitz-class aircraft carrier USS Carl Vinson (CVN 70), Carrier Air Wing (CVW) 2, Ticonderoga class guided-missile cruiser USS Princeton (CG 59) and Destroyer Squadron (DESRON) 1, which includes Arleigh Burke-class guided-missile destroyers USS Hopper (DDG 70), USS Kidd (DDG 100), USS Sterett (DDG 104), and USS William P. Lawrence (DDG 110).

CSG 5 consist of Nimitz aircraft carrier USS Ronald Reagan (CVN 76); Carrier Air Wing (CVW) 5; cruisers USS Antietam (CG 54) and USS Robert Smalls (CG 62), as well as destroyer USS Shoup (DDG 86) and elements of Destroyer Squadron (DESRON) 15 staff.

The Ronald Reagan Carrier Strike Group is forward-deployed to Yokosuka, Japan, and operates in the U.S. 7th Fleet area of operations. U.S. 7th Fleet is the U.S. Navy's largest forward-deployed numbered fleet, and routinely interacts and operates with Allies and partners in preserving a free and open Indo-Pacific region.

For more news from CSG 1, visit http://www.dvidshub.net/unit/CSG1

For more news from CSG 5,

visit https://www.dvidshub.net/unit/TF70CSF-5

Tri-lateral alliance set to address critical AUKUS workforce and skilling opportunities

Release from HII

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SYDNEY, Australia, Nov. 06, 2023 (GLOBE NEWSWIRE) — Defense companies HII (NYSE: HII) and Babcock Australasia (Babcock) have joined forces with the University of Adelaide, Curtin University, and the University of NSW to form the AUKUS Workforce Alliance (AWA) – a dedicated partnership committed to preparing a skilled workforce in support of all steps of Australia's optimal pathway to sovereign nuclear-powered submarines under AUKUS Pillar 1.

The AWA will work together in a tri-lateral alliance, combining proven and trusted knowledge, skills and unrivalled experience from across Australia, the United Kingdom and United States.

The AWA seeks to address the current and future workforce needs that are required to accelerate sovereign capability, capacity and resilience for Australia's defense sector.

Working together, the AWA will educate the thousands of qualified Australian engineering, maritime and nuclear trade

and professional workers required to support the nation’s nuclear-powered submarine enterprise from infrastructure, sustainment, supply chain through to disposal.

The AUKUS Workforce Alliance will:

Establish a proactive, innovative and internationally recognised platform for skill enhancement and leadership to support development of a sovereign, nuclear-powered submarine workforce in Australia.

Lead the development and execution of critical upskilling programs, focusing on harnessing the full potential of Australia’s industrial base.

Foster cutting-edge research and practical experience for the future workforce.

Quotes attributable to:

HII President Nuclear and Environment Services Group Michael Lempke

“HII is proud to work with Australia’s education institutions and to bring more than 60 years of nuclear shipbuilding expertise to the training of a workforce capable of supporting, and ultimately executing, nuclear shipbuilding. The AWA is an investment in the security, and economic and technological progress of Australia. This comprehensive and rigorous training approach is also a commitment to the safety and protection of people and the environment and fostering public trust.”

Babcock Australasia Managing Director AUKUS and International Sir Nick Hine KCB

“Babcock is proud to be partnering with HII and some of Australia’s top universities in a true, tri-lateral alliance to form the AUKUS Workforce Alliance.

Collectively, we will equip the workforce with the knowledge and the skills required to deliver the most complex and largest defence agenda in Australia's history.

Given our extensive global experience in sustainment, nuclear safety and stewardship, Babcock stands ready to assist Australia in delivering this very significant opportunity, including growing the required workforce to support the delivery of the nation's first nuclear-powered submarines."

University of Adelaide Vice-Chancellor and President, Professor Peter Høj AC

"The University of Adelaide is pleased to be joining the AUKUS Workforce Alliance (AWA). This alliance will strengthen and broaden the university's partnering with industry in developing the workforce for the nation's naval shipbuilding enterprise.

The University of Adelaide has an outstanding global reputation for teaching and research as well as a strong track record of working closely with industry, government and our global partners.

This partnership marks another step in the journey towards Australia realising the goals of the AUKUS partnership."

Curtin University Vice-Chancellor, Professor Harlene Hayne

"Curtin is proud to be a foundation partner with global defence industry leaders HII and Babcock, and the University of NSW and University of Adelaide, in developing a highly skilled workforce to support the nuclear-powered submarine program in Australia and Western Australia.

Drawing on our significant expertise in building strong, sustainable communities of practice and in resilience and defence capabilities, Curtin will generate WA's talent pipelines in collaboration with our key strategic partners

within state and federal governments, industry, and the broader education sector, noting initial workforce deployment will be centred around WA.”

University of NSW Professor Attila Brungs, Vice-Chancellor and President of UNSW

“UNSW is pleased to be contributing our unique expertise and capabilities to the ground-breaking AUKUS Workforce Alliance. We look forward to supporting the Australian Submarine Agency’s “whole of nation” skilling objectives through collaboration with our partner universities in Adelaide and Perth, as well as with two global defence industry primes, in Babcock and HII, boasting a deep shared submarine capability sustainment heritage.

Our postgraduate and short courses across many faculties are geared to skill-building in advanced capabilities. Coupled with UNSW’s nation-leading faculty of engineering, the only nuclear engineering program in Australia with cutting-edge work on nuclear safety, UNSW is already pivoting towards generating the workforce needed across the entire nuclear ecosystem, from social licence to manufacturing facilities to regulatory authorities.”

AI-Powered Drones: A Revolutionary Solution to Navy Corrosion Challenges

Unmanned aerial vehicles have played an important role in combat since the late 1960s, particularly in reconnaissance missions. Today, with the help of AI, small, autonomous drones such as Skydio's sUAS platforms can leverage this reconnaissance capability to combat one of the most stubborn challenges to fleet readiness: corrosion. These smart drones can simplify the detection of this $7 billion dollar annual problem for the U.S. Navy, and also reduce the cost of controlling it.

A Smarter Approach to Predictive Maintenance

Corrosion can be mitigated to some extent, but it can never be eliminated. Furthermore, the rate of corrosion on any given ship on any given mission cannot be accurately predicted. This means that scheduled preventive maintenance often takes place

either too early, which wastes money, or too late, which can put the structural integrity of a ship's hull at risk, while giving ships an appearance not reflective of the United States as a world naval power.

In contrast, condition-based maintenance aligned to the most current condition of a hull ensures optimal timing for maintenance. This is where autonomous drones come into play. Visual data gives commanders and naval engineering teams a corrosion assessment in near-real time, so they can accurately determine the timing and the level of maintenance required for optimized maintenance operations.

The Value of Visual Data

Today, hull inspections are still often conducted by sailors on painter boards. This antiquated approach has three problems. First, it takes crew members away from their primary tasks at a time when many ships are already undermanned. Second, the results of personal observations are conveyed verbally or in written form, and words are limited. The level of detail and the potential urgency could be subject to misinterpretation, depending on the individuals providing and receiving the reports. Third, personal observation is a slow and tedious process.

The visual data drones provide is more precise than words, and is available in near-real time. This speed, convenient for inspections, is crucial during or after kinetic or dynamic events. The AI-powered platform can obtain immediate damage assessments. Detailed visual data can be forwarded to shipyards prior to the ship's arrival, allowing for optimal planning, so resources are properly allocated, aligned and timed; reducing maintenance backlogs and getting ships back to sea faster.

AI-Powered Obstacle Avoidance

Manually flown small drones have a well-earned reputation for

being difficult to fly. Skydio's sUAS platforms use AI to deliver new consistency to flight operations, enabling safe, secure, repeatable and reproducible results in anyone's hands. Software-defined obstacle avoidance simplifies and automates pilot operations while reducing training time for the operators to be proficient to fly their missions. More personnel can be trained faster, complex flying missions can be executed and critical infrastructure can be inspected safely and routinely. Other AI-powered features include automated workflows that produce textured models on the drone in just minutes, with no additional computers or systems needed – and no special training burdens. Machines should aid human team-mates, rather than adding unaccounted for burdens, and the right autonomous drones can do exactly that for ship commanders, sailors, and maintainers, ultimately changing the landscape of naval maintenance.

About Skydio

Founded in 2014, Skydio is the leading US manufacturer of autonomous drones utilizing breakthrough AI. Skydio designs, assembles, and supports its products in the US from its San Mateo, CA headquarters, offering the highest standards of supply chain and manufacturing security.

Ike Carrier Strike Group Arrives in Middle East Region

Release from U.S. Naval Forces Central Command Public Affairs

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04 November 2023

MANAMA, Bahrain – The Dwight D. Eisenhower Carrier Strike Group (IKECSG) arrived in the Middle East as part of the increase in regional posture, Nov. 4.

The strike group is commanded by Carrier Strike Group (CSG) 2 and comprised of flagship aircraft carrier USS Dwight D. Eisenhower (CVN 69), guided-missile cruiser USS Philippine Sea (CG 58), guided-missile destroyers USS Mason (DDG 87) and USS Gravely (DDG 107) of Destroyer Squadron (DESRON) 22, Carrier Air Wing (CVW) 3 with its nine squadrons, and the Information Warfare Commander.

Dwight D. Eisenhower, Philippine Sea, and Mason entered the Red Sea after transiting from the Mediterranean Sea through the Suez Canal, Nov. 4. CSGs bring to the region additional aviation and naval assets, providing greater flexibility and maritime capability to U.S. 5th Fleet.

“The arrival of IKECSG to Middle East region displays our speed and agility to flex as our nation’s leaders determined a balance of maritime capability in support of national security priorities,” said Rear Adm. Marc Miguez, commander, CSG-2, IKECSG. “The strike group brings an unparalleled combat superiority to CENTCOM and we will be leveraging our presence in the theater to enhance regional security and operate alongside our allies and partners.”

Squadrons of CVW-3 include the “Gunslingers” of Strike Fighter Squadron (VFA) 105, the “Fighting Swordsmen” of Strike Fighter Squadron (VFA) 32, the “Rampagers” of Strike Fighter Squadron (VFA) 83, the “Wildcats” of Strike Fighter Squadron (VFA) 131, the “Screwtops” of Carrier Airborne Early Warning Squadron (VAW) 123, the “Zappers” of Electronic Attack Squadron (VAQ) 130, the “Dusty Dogs” of Helicopter Sea Combat Squadron (HSC) 7, the “Swamp Foxes” of Helicopter Maritime Strike Squadron

(HSM) 74 and the “Rawhides” of Fleet Logistics Support Squadron (VRC) 40.

IKECSG units departed their homeports of Norfolk, Virginia, and Mayport, Florida, on Oct. 13 & 14 for a scheduled deployment.

The U.S. 5th Fleet area of operations encompasses approximately 2.5 million square miles of water space and includes the Arabian Gulf, Gulf of Oman, Red Sea, parts of the Indian Ocean and three critical choke points at the Strait of Hormuz, Suez Canal and Strait of Bab al-Mandeb.

OHIO-CLASS SUBMARINE ENTERS THE U.S. 5TH FLEET AREA OF OPERATIONS

An Ohio-class submarine approaches the Mubarak Peace Bridge while transiting the Suez Canal, Nov. 5. The boat is deployed to the U.S. 5th Fleet area of operations to help support maritime security and stability in the Middle East region. (U.S. Navy photo by Mass Communication Specialist 1st Class Jonathan Word)

Release from U.S. Naval Forces Central Command Public Affairs

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06 November 2023

MANAMA, Bahrain – An Ohio-class submarine arrived in the U.S. 5th Fleet area of operations, Nov. 5.

The submarine's rapid deployment in the U.S. Central Command area of responsibility demonstrates the flexibility and dynamic ability to deter potential adversaries, reassure partners, enhanced maritime security, and ensure freedom of navigation and the free flow of commerce.

U.S. Naval Forces Central command is responsible for

approximately 2.5 million square miles of area including the Arabian Gulf, Gulf of Oman, North Arabian Sea, Gulf of Aden, and the Red Sea. The U.S. Naval Forces Central Command's mission is to conduct maritime security operations, theater security cooperation efforts, and strengthen partner nations' maritime capabilities to promote security and stability in the U.S. 5th Fleet area of operations.

Kratos XQ-58A Valkyrie Completes U.S Marine Corps PAACK-P Program Flight

Marines XQ-58A showing off its unique graphics scheme in flight

Release from Kratos Defense & Security

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November 2, 2023 at 4:15 PM EDT

SAN DIEGO, Nov. 02, 2023 (GLOBE NEWSWIRE) — Kratos Defense & Security Solutions, Inc. (Nasdaq: KTOS), a Technology Company in the Defense, National Security and Global Markets and an industry-leading provider of high-performance, jet-powered unmanned aerial systems, today announced the Marine Corps XQ-58A Valkyrie, a highly autonomous, low-cost tactical unmanned air vehicle successfully completed its first test flight October 3, 2023, at Eglin Air Force Base, Florida. Kratos partnered with the Marine Corps, the Office of the Undersecretary of Defense for Research and Engineering (OUSD (R&E)), the Naval Air Systems Command and Naval Warfare Center Aircraft Division to facilitate the ongoing research, development, test and evaluation of the Marine Corps XQ-58A Valkyrie.

This joint collaboration was supported by the 40th Flight Test Squadron, 96th Test Wing and the Naval Air Warfare Center Aircraft Division. This flight marks a key milestone in the Marine Corps' Penetrating Affordable Autonomous Collaborative Killer – Portfolio (PAACK-P) program. Future test flights inform Marine Corps XQ-58A Valkyrie requirements for the Marine Air-Ground Task Force Unmanned Aerial System Expeditionary (MUX) Tactical Aircraft (TACAIR).

"This XQ-58A test flight and the data collected inform future requirements for the warfighter, while fueling innovation and experimentation opportunities within Marine Corps modernization and industry partnership," said Scott Bey, portfolio manager of OUSD (R&E), Mission Capabilities, Prototypes and Experiments.

The aircraft performed as expected. The XQ-58A has a total of six planned test flights with objectives that include evaluating the platform's ability to support a variety of

intelligence, surveillance, and reconnaissance (ISR) missions; the effectiveness of autonomous electronic support to crewed platforms; the potential for AI-enabled platforms to augment combat air patrols; and continuing to mature other manned-unmanned teaming (MUM-T) capability objectives.

“The Marine Corps constantly seeks to modernize and enhance its capabilities in a rapidly evolving security environment,” said Lt. Col. Donald Kelly, Headquarters Marine Corps Aviation Cunningham Group and Advanced Development Team. “Testing the XQ-58 Valkyrie determines requirements for a highly autonomous, low-cost tactical UAS that compliments the need for agile, expeditionary and lethal capabilities in support of both the Marine Corps’ stand-in force operations in austere environments and the Joint Force.”

Flying since 2019, Kratos’ XQ-58A Valkyrie is a high-performance tactical UAV capable of long-range flights at high-subsonic speeds currently in production in Oklahoma City. The Valkyrie can serve as a loyal wingman, conduct single UAS operations, or operate in swarms. Combined with its affordability, survivability, long-range, high-subsonic speeds, maneuverability, and ability to carry flexible mission kit configurations and mix of lethal weapons from its internal bomb bay and wing stations, the XQ-58A provide extreme flexibility for the multiple Department of Defense customers that have it under contract today.

With design and production approaches leveraged and evolved from Kratos’ jet drone target aircraft, the high-performance Valkyrie falls well within the attritable cost class as defined by the House-passed 2024 National Defense Authorization Act (NDAA)—another key discriminator and a key enabling technology to achieve the Department of Defense’s mass mission.

Steve Fendley, President of Kratos Unmanned Systems Division, said, “We are incredibly proud to have kicked off this first

flight of the unique Marines Valkyrie mission configuration with such a successful result and look forward to continuing the partnership and cooperative team working relationship with the Marine Corps, the 40th Flight Test Squadron, 96th Test Wing and the Naval Air Warfare Center Aircraft Division.”

Kratos’ American-made, affordable, high-performance jet aircraft offer affordable solutions to the production, deployment, and engagement of affordable mass for U.S. military defense. Kratos’ unique approach and portfolio of in-production and flying UAVs directly align with the Department of Defense’s most recent technology, strategy, and affordability thrusts by delivering systems well within the prescribed cost thresholds which can deploy and operate from even the most remote regions around the world.

Navy to deploy SDB-II smart weapon aboard F/A-18 aircraft

An F/A-18 conducts testing with the Small Diameter Bomb (SDB) II at Naval Air Station Patuxent River, Md. (U.S. Navy photo)
Release from the Naval Air Systems Command

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Nov 6, 2023

NAVAL AIR SYSTEMS COMMAND, Patuxent River, Md. – The Navy is set to field the Small Diameter Bomb-II on the F/A-18E/F after declaring Early Operational Capability (EOC) in October.

The F/A-18E/F is the Navy's first platform to carry the SDB-II, giving the aircraft the capability to hit moving targets in harsh weather and address targets in dynamic scenarios.

"The Navy and Air Force team, along with the test community and fleet stakeholders, worked relentlessly to expedite the fielding of this weapon," said Tyler Alt, Navy SDB-II program manager. "This weapon will give our warfighters a much-needed capability and provide the basis for future network enabled weapons."

The team will complete two additional operational test events before achieving Initial Operational Capability (IOC) in 2024.

SDB-II is an air-launched, precision-strike standoff weapon that enables the warfighter to defeat moving and fixed targets. It can operate in adverse weather conditions through its tri-mode seeker that employs infrared and millimeter wave radar to see through fog, smoke and rain.

The weapon has the capability to receive updated target coordinates mid-flight via two-way datalink communications. Using these network options, SDB-II allows airborne or ground controllers the ability to send in-flight target updates.

SDB-II is a Joint-Interest, Air Force Lead program and is currently fielded on the U.S. Air Force’s F-15E aircraft. SDB-II will also be compatible and fielded on F-16C/D and F-35 aircraft.

The Navy component of the SDB-II program is executed by the Precision Strike Weapons Program Office (PMA-201), which provides naval aviation with dominant lethal, integrated precision strike solutions for any conflict anytime, anywhere.

U.S. Navy Destroyer Conducts Freedom of Navigation Operation in the South China

Sea

Release from Commander, U.S. 7th Fleet Public Affairs

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Nov. 3, 2023

SPRATLY ISLANDS, South China Sea – On November 3, USS Dewey (DDG 105) asserted navigational rights and freedoms in the South China Sea near the Spratly Islands, consistent with international law. At the conclusion of the operation, USS Dewey (DDG 105) exited the excessive claim area and continued operations in the South China Sea. This freedom of navigation operation ("FONOP") upheld the rights, freedoms, and lawful uses of the sea recognized in international law by challenging restrictions on innocent passage imposed by the People's Republic of China (PRC), Taiwan, and Vietnam.

The PRC, Vietnam, and Taiwan each claim the entirety of the Spratly Islands, while the Philippines, Malaysia, and Brunei

also claim certain features. The PRC, Vietnam and Taiwan each require either permission or advance notification before a military vessel or warship engages in “innocent passage” through their territorial sea, in violation of international law. Under customary international law as reflected in the Law of the Sea Convention, the ships of all States – including their warships – enjoy the right of innocent passage through a territorial sea. The unilateral imposition of any authorization or advance-notification requirement for innocent passage in unlawful. By engaging in innocent passage without giving prior notification to or asking permission from any of the claimants, the United States challenged these unlawful restrictions imposed by the PRC, Taiwan, and Vietnam. The United States demonstrated that innocent passage in not subject to such restrictions.

Unlawful and sweeping maritime claims in the South China Sea pose a serious threat to the freedom of the seas, including the freedoms of navigation and overflight, free trade and unimpeded commerce, and freedom of economic opportunity for South China Sea littoral nations.

The United States challenges excessive maritime claims around the world regardless of the identity of the claimant. Customary international law reflected in the 1982 Law of the Sea Convention protects certain rights, freedoms and lawful uses of the sea enjoyed by all nations. The international community has an enduring role in preserving the freedom of the seas, which is critical to global security, stability, and prosperity.

The United States upholds freedom of navigation for all nations as a principle. As long as some countries continue to claim and assert limits on rights that exceed their authority under international law, the United States will continue to defend the rights and freedoms of the sea guaranteed to all. No member of the international community should be intimidated or coerced into giving up their rights and freedoms.

U.S. forces operate in the South China Sea on a daily basis, as they have for more than a century. They routinely operate in close coordination with like-minded allies and partners that share our commitment to uphold a free and open international order that promotes security and prosperity. All of our operations are conducted safely, professionally, and in accordance with customary international law. The operations demonstrate that the United States will fly, sail, and operate wherever international law allows – regardless of the location of excessive maritime claims and regardless of current events.

U.S. Navy Funds Mercury to Develop Photonics Chiplet Manufacturing Capability for Defense Applications

SEAPOWER
The Official Publication of the Navy League of the United States

Release from Mercury Systems Inc.

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ANDOVER, Mass., Nov. 02, 2023 (GLOBE NEWSWIRE) – Mercury Systems, Inc. (NASDAQ: MRCY, www.mrcy.com), a technology company that delivers mission-critical processing power to the edge, today announced an agreement with the U.S. Navy to develop manufacturing capabilities that would allow commercial photonics chiplets to accelerate edge processing in defense applications.

The Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) Trusted and Assured Microelectronics (T&AM) Program's Project KANAGAWA aims to mature the domestic supply chain and manufacturing processes for multi-chip packages, where co-packaged optics are integrated with electronic integrated circuits to enable long-reach and high-bandwidth data transfer. Compared to conventional copper connections, photonics uses optical fibers to enable orders of magnitude improvement in data bandwidth at a fraction of the power needed. The promise of this technology for defense systems has been well-known for decades, but demonstrations have relied on expensive and custom approaches that are not compatible with high-volume production.

Under a $3.9 million, 17-month Other Transaction Agreement (OTA) with Naval Surface Warfare Center (NSWC) Crane Division, Mercury gains access to photonics devices developed for the commercial sector by Intel and Ayar Labs. These chiplet devices use optical technology to move data through systems such as data centers at speeds in excess of a terabyte per second. Mercury plans to develop miniaturized and ruggedized packages using photonics chiplets for defense applications to allow edge sensor data to be ingested much faster, enabling faster decision-making in next-generation radar and electronic warfare systems.

“We are excited to partner with the Navy to bring this game-changing commercial technology to the defense community,” said Tom Smelker, Mercury’s GM of Microsystems. “As we continue to drive innovation in defense microelectronics at the edge and move from board-scale to chip-scale, photonics chiplets will play a key role in advanced packaging and benefit a wide range of systems and platforms.”

“Breaking the data transfer bottleneck is a critical objective for the RF & Optoelectronics (RF/OE) program,” said Joshua Hawke, USD(R&E) RF/OE Execution Lead. “This partnership with Mercury will proliferate co-packaged optics within the Defense Industrial Base and accelerate adoption of innovative technology by the warfighter.”

U.S. Coast Guard Cutter Kimball returns home following 85-day Bearing Sea patrol

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Nov. 2, 2023

HONOLULU – The U.S. Coast Guard Cutter Kimball (WMSL 756) returned home to Honolulu, Wednesday, after an 85-day multi-mission patrol covering 14,000 nautical miles spanning from the Hawaiian Islands to north of the Arctic Circle.

The crew provided search-and-rescue coverage and conducted living marine resources (LMR) and counter Illegal Unreported and Unregulated (IUU) Fishing operations during the patrol following their actions responding to the Maui wildfires.

Kimball departed August 8 for the Aleutian Island chain and later that evening, the cutter received a report of people in the water attempting to escape a raging wildfire on Maui. The cutter shifted to the tactical control of Sector Honolulu and altered course to support the mass search and rescue efforts. Arriving on scene within hours, Kimball assumed the role of On Scene Commander of Coast Guard Station Maui, Coast Guard

Cutter Joseph Gerczak (WPC 1126), and Air Station Barbers Point MH-65s, who collectively searched 790 square nautical miles, saved 17 lives, and assisted approximately 40 survivors ashore. During Kimball's three days on scene, their crew launched two cutter small boats for over 25 combined hours and deployed the cutter's UAS drone for over 8 hours of flight time, conducting search and rescue and damage assessment support.

After being relieved by Juniper, Kimball's crew transited north to support the Coast Guard's 17th District by providing search-and-rescue coverage and conducting LMR and counter IUU-Fishing patrols spanning the Northern Pacific Ocean, Bering Sea, and the American Arctic.

Operating under Operation Alaskan Groundfish Enforcer, Kimball ensured compliance with all federal fisheries conservation laws and safety requirements by completing 10 LMR boardings on fishing vessels in the Bering Sea. Kimball issued eight citations and one termination for gross violation of U.S. and international regulations. This resulted in the Kimball escorting the fishing vessel back to the nearest port and ensured they corrected their discrepancies.

As the sole U.S. military asset in the Bering Sea, Kimball diverted to provide presence alongside the U.S. domestic fishing fleet in the remote region of the U.S. Arctic upon receiving intelligence of a Russian military exercise within the U.S. Exclusive Economic Zone (EEZ). Kimball's presence ensured the safety of 23 mariners while they worked within the U.S. EEZ near Russian warships as part of Operation Frontier Sentinel.

"I couldn't be prouder of Kimball's crew," said Capt. Bob Kinsey, Kimball's commanding officer. "They were able to showcase the true value that the national security cutter brings to such a dynamic area of responsibility. The crew's

diversity of skill harnessed our Coast Guard authorities and capabilities to provide tangible lifesaving results, from responding to the tragic fires in Maui to providing an influential presence in the Chukchi Sea and American Arctic to preserving the livelihoods of our Bering Sea fishermen through the enforcement of federal safety and living marine resources laws."

To ensure crew preparation and proficiency, Kimball conducted numerous flight operations with MH-65 Dolphin and HH-60 Jayhawk helicopters and aircrews from U.S. Coast Guard Air Station Kodiak, resulting in the qualification of eight pilots and recertification of Kimball's crew.

While in Dutch Harbor, Alaska, Kimball's crew engaged with the local community by participating in sports at the community center, conducted cutter tours, and volunteered for community events. Notably, Kimball assisted the Museum of the Aleutians in relocating fragile gray whale fossils for a new exhibit. Kimball also met with the mayor of Dutch Harbor to discuss how the Coast Guard and the town can continue strengthening their relationship.

Commissioned in 2019, Kimball is the Coast Guard's seventh national security cutter. National security cutters are the largest and most technologically sophisticated cutters in the Coast Guard's white-hull fleet. National security cutters can operate in the most demanding open ocean environments, including the Bering Sea's hazardous fisheries and the Southern Pacific's vast approaches, where much of the American narcotics trafficking occurs. With robust command, control, communication, computers, intelligence, surveillance and reconnaissance equipment, stern boat launch and aviation facilities, as well as long-endurance station keeping, National security cutters are an afloat operational-level headquarters for complex law enforcement and national security missions involving multiple Coast Guard and partner agency

participation.