

Shield AI to Acquire Australia's Sentient Vision Systems, Establish Shield AI Australia



The acquisition enhances Shield AI's software suite and expansion into Australian market, the company said. *Shield AI* SYDNEY – Shield AI Inc. announced a definitive agreement to acquire Sentient Vision Systems, an Australia-based leader in AI-enabled real-time situational awareness, pending customary closing conditions and regulatory approval.

The companies will merge AI expertise and operational understanding to deliver superior intelligence surveillance and reconnaissance capabilities for today's rapidly changing defense and security environment. In August 2023, the companies announced the joint development of a ViDAR-enabled wide area motion imagery (WAMI) solution called "Sentient Observer," which Shield AI plans to fly this year.

“The combination of AI pilots, Sentient Observer and teams of affordable drones like the MQ-35 VBAT will provide the same land and maritime domain awareness that today’s \$40 million and \$180 million Group 5 drones and crewed aircraft like the P-8 provide, at a fraction of the price. The DoD has asked for an all-seeing eye over tens of thousands of square miles, 24/7, without the need for GPS or communication links. For Shield AI, Sentient Observer is the final piece of that puzzle. The DoD can begin augmenting and replacing their legacy solutions for a distributed, low cost, low risk solution that doesn’t break the bank if an aircraft is shot down,” said Brandon Tseng, Shield AI’s president, cofounder, and former Navy SEAL.

“This acquisition unites Sentient’s ViDAR and our Hivemind AI pilot, creating the world’s most advanced AI-piloted ISR sensor package,” said Ryan Tseng, CEO of Shield AI. “Considering the imperative of covering vast maritime areas, especially in the Pacific, joining forces with Sentient was a strategic choice given their expertise in optical radar solutions. The integration of WAMI on V-BAT will revolutionize our offering, enabling Group 3-sized aircraft to perform tasks that previously required larger, costlier aircraft, significantly enhancing our customer’s operational capabilities.”

This news follows several significant milestones for Shield AI’s growth in the Australian market. In February, V-BAT received certification for Australian operations from Australia’s Civil Aviation Safety Authority. Shortly thereafter, in partnership with Shield AI’s Australian partner, Toll Aviation, the companies launched the inaugural Australian V-BAT training course.

“What stood out to us about Shield AI is that they are the only company in the world with an operational AI pilot, and therefore have the technological expertise and maturity to really deliver on the AI technology workstream underlined in

AUKUS Pillar 2. The innovation breakthrough combining our computer vision AI-enabled ViDAR and Shield AI's Hivemind will increase situational awareness, enabling quicker more effective decision making and help to save lives," said Sentient's CEO, Mark Palmer.

ViDAR is Sentient's AI system, which uses an electro-optic or infrared sensor to detect and classify targets in the imagery stream that would be invisible to a human operator or to a conventional radar. Shield AI's flagship product, Hivemind, is an AI pilot that enables teams of intelligent aircraft to operate and complete missions autonomously in high-threat environments, without the need for remote operators or GPS.

Hivemind is an aircraft-agnostic autonomy stack similar to the self-driving technology found in cars. It has flown six aircraft, including quadcopters, the MQ-35A V-BAT, the F-16, and Kratos MQM-178 Firejet. Later this year, it will fly Kratos' XQ-58 Valkyrie. Shield AI has accumulated more autonomous flight hours executing fighter jet maneuvers, like dogfighting, than any company in the world.

Navy Awards Boeing Additional Funds for MQ-25 Drones for Testing



The Boeing-owned MQ-25 test unmanned aerial vehicle, T1.
(Boeing)

By Richard R. Burgess, Senior Editor

ARLINGTON, Va. – The Navy has awarded Boeing funds to enhance the production of MQ-25A Stingray carrier-based aerial refueling unmanned aerial vehicles, bringing to five the number procured for testing.

The Naval Air Systems Command awarded The Boeing Company a cost-plus-fixed-fee, cost-plus-incentive-fee, fixed-price incentive (firm-target) \$657.1 million contract modification for the aircraft, according to a March 29 Defense Department contract announcement.

“This modification adds scope for the production and delivery of two additional MQ-25 System Demonstration Test Article aircraft (air vehicles four and five), to include associated tooling and communication system changes for the Navy,” the announcement said. “Additionally, this modification definitizes obsolescence phase two for non-recurring engineering to address product baseline obsolescence to support low-rate initial production for the MQ-25 Stingray program.”

The MQ-25A is a single-engine carrier-based UAV designed to refuel other aircraft while in flight. The Navy is procuring the Stingray to refuel F-35 Lightning II and F/A-18E/F Super Hornet strike fighters, EA-18G Growler electronic attack aircraft, and E-2D Advanced Hawkeye command and control aircraft.

Procurement of the MQ-25A will allow the Navy to free up Super Hornet strike fighters from the aerial refueling role for their primary combat missions. It also will help preserve the service life of the Super Hornet fleet.

The Navy ordered four development models of the MQ-25A in August 2018, followed by an order for three more in April 2020. The company-owned prototype made its first flight in September 2019 and in 2021 demonstrated its ability to refuel the F-35C, F/A-18E/F, and the E-2D. The September 2022, the Navy awarded Boeing a contract for advance materials for Low-Rate Initial Production Lot 1. Initial operational capability is expected in 2026. The Navy plans to procure 72 Stingrays.

Lockheed Martin Conducts Historic LRASM Flight Test



Orlando, Fla., April 3, 2024 – The U.S. Navy in partnership with Lockheed Martin [NYSE: LMT] successfully conducted a historic Long-Range Anti-Ship Missile (LRASM) flight test with four missiles simultaneously in flight.

During the 12th Integrated Test Event (ITE-12), the U.S. Navy was able to demonstrate the weapon's inherent high-end lethality from mission planning through kill chain integration and its effects on the target. All mission objectives were met, reinforcing high confidence in the weapon's capabilities and superior firepower.

“We have continued to invest in the design and development of LRASM's anti-surface warfare capabilities to ensure that warfighters have the 21st century security solutions they need to complete their missions and come home safely,” said Lisbeth Vogelpohl, LRASM program director at Lockheed Martin Missiles and Fire Control. “This event was a testament to our commitment to deliver reliable products that work each and every time, ensuring those who serve stay ahead of ready.”

ITE-12 was the next ‘big-step’ in LRASM's evolution. The successful test was a graduation exercise for the missiles’

latest configuration and lays the foundation for increased capabilities to come.

As a member of the AGM-158 family of cruise missiles, LRASM delivers long-range, highly survivable and lethal capability against highly defended surface combatants that no other weapon in the inventory can provide.

Kratos Demonstrates XQ-58A Electronic Warfare Capabilities for Marine Corps



From Kratos Defense, April 2, 2024

SAN DIEGO, April 02, 2024 (GLOBE NEWSWIRE) – Kratos Defense & Security Solutions, Inc. (NASDAQ:KTOS), a leading National

Security Solutions provider, announced that Kratos Unmanned Systems Division has successfully demonstrated the ability of the XQ-58A to fly in concert with two F-35 aircraft and the ability to deliver an integrated electronic attack (EA) capability on the XQ-58A Valkyrie aircraft during a live flight test event at Eglin Air Force Base, Florida. The demonstration completes the first phase of the United States Marine Corps' Penetrating Affordable Autonomous Collaborative Killer – Portfolio (PAAACK-P) program. Flight test support was provided by the 40th Flight Test Squadron, 96th Test Wing. All flight test objectives were successfully met.

The demonstration follows the award of a \$22.9M "Phase 2" contract modification on December 4, 2023 for additional engineering development and flight test demonstrations, and marks a significant milestone in the PAAACK-P program as the Headquarters Marine Corps Aviation Cunningham Group and Advanced Development Team, Marine Corps Warfighting Lab, the Office of the Undersecretary of Defense for Research and Engineering (OUSD(R&E)), the Naval Air Systems Command (NAVAIR), and Naval Air Warfare Center Aircraft Division (NAWCAD) AIRWorks continue to inform MQ-58B requirements for the Marine Air-Ground Task Force (MAGTF) Unmanned Aerial System (UAS) Expeditionary (MUX) Tactical Aircraft (TACAIR) for use in a Suppression of Enemy Air Defense (SEAD) role.

The XQ-58A's advanced EA payload autonomously detected, identified, and geolocated multiple tactically relevant targets of interest, transmitted emitter target track coordinates to collaborative assets, and successfully presented non-kinetic electronic attack effects against multiple emitters. Flying since 2019, the Kratos XQ-58A Valkyrie is a high-performance, runway-independent tactical UAV capable of long-range flights at high-subsonic speeds. The Valkyrie can serve as a loyal wingman, conduct single UAS operations, or operate in swarms. Combining affordability, survivability, long-range, high-subsonic speeds,

Specialist Underwater Robot

SEAPOW

The Official Publication of the Navy League of the United States

POTTSTOWN, Pa. – (April 1, 2024) VideoRay, the world's leading manufacturer of portable underwater robots, is proud to announce the launch of its new Mission Specialist Ally.

Ally is the newest member of the Mission Specialist family, joining the ranks of the highly sought-after Defender, selected by the US Navy to support their Maritime Expeditionary Standoff Response (MESR) program, as well as the Pro 5.

Ally offers a baseline Mission Specialist solution for those with challenging applications requiring a cost-effective solution. The platform delivers a powerful alternative that allows users to expand their vehicle's capabilities and add to their fleet as their budgets and needs evolve. The new four-thruster ROV (Remotely Operated Vehicle) boasts an impressive 4-knot forward speed with lateral thrust capability to deliver agility and power, all in a compact design, with capabilities unmatched for its size and power consumption.

Ally shares common components with all other Mission Specialist top side units, vehicles, tethers, and modules, for

complete product line compatibility and expansion. This enables customers operating VideoRay's top-of-the-line Defenders to supplement their fleet with a lower-cost option. The versatile Ally can support operations with specific mission profiles and also serves as a source for readily available spares modules to help ensure mission uptime.

The 300-meter (984 foot) rated Ally can be adapted to accept a round or square float configuration. The square float allows the platform to carry additional payload and allows for topside or battery-powered operations, whereas the 30.48 cm (12-inch) round configuration is ideal for pipe and tunnel inspections.

Ally's base configuration features LED lights and VideoRay's new Ultra 4K Smart Camera with onboard processing. Options include a unique spring-loaded vertical manipulator capable of lifting loads up to 9.5 kg (21 lbs), as well as a forward-looking sonar and DVL (Doppler Velocity Log) for customers requiring navigation.

"We're thrilled to introduce Ally to the market" announced Marcus Kolb, VideoRay's Chief Innovation Officer. "Ally provides customers who aspire to our world-renowned Mission Specialist technology with an entry-level ROV that can expand with their budget and needs – and can ultimately evolve into a top-of-the-line Defender. The fact that it shares common topside consoles and subsea modular components with our other Mission Specialist underwater robots delivers a huge advantage, allowing for cost-effective fleet expansion. We can't wait to begin delivering Ally to our customers in June."

Navy and Air Force fighters to train as a joint force in NAWCAD's Joint Simulation Environment



A pilot tests a U.S. Air Force F-22 Raptor cockpit simulator headed for installation in the Naval Air Warfare Center Aircraft Division's Joint Simulation Environment. The Navy installed a division of four Raptor cockpits alongside a division of eight F-35 Lightning cockpits in its advanced tactical trainer so Navy and Air Force fighter pilots can train as a joint force starting in 2024. (U.S. Navy photo by Terri Thomas)

[Naval Air Warfare Center Aircraft Division, Apr. 2, 2024](#)

PATUXENT RIVER, Md. – Navy and Air Force fighter pilots will begin training as a joint force at the [Naval Air Warfare Center Aircraft Division](#) (NAWCAD)'s [Joint Simulation](#)

[Environment](#) (JSE) starting in 2024.

NAWCAD installed a division of four U.S. Air Force F-22 Raptor cockpits into the Navy's premier simulation test and training facility alongside its division of eight F-35 Lightning cockpits in January.

"When America is engaged in conflict, the DOD will bring joint capability to bear from every service across all domains," said NAWCAD Commander Rear Adm. John Dougherty IV. "We've replicated this ability in the Joint Simulation Environment, a force multiplier helping aviators deter aggression and—if necessary—prevail in conflict."

The new addition of fifth-generation fighter simulators brings Navy, Marine Corps, Air Force, and allied partners into the hyper-realistic digital range that consists of cockpits, domed simulators with 4K projectors, and aircraft software to enable pilots to fly wartime scenarios in a near-exact virtual environment. Tactical groups training in NAWCAD's JSE fly more sorties over one week than they do over a year on open-air ranges.

"Open-air ranges are extremely constrained with safety limitations that prevent warfighters from training like they'd fight," said NAWCAD JSE Director Blaine Summers. "The JSE is where fifth-gen fighters train to hone their tactics and fight like their lives depend on it."

Developed by Navy engineers and industry partners, NAWCAD's JSE is a powerful training and test facility designed to adapt and grow, utilizing hardware and software from actual DOD aircraft, weapons, and other defense systems. The JSE has all the equipment and experts needed to keep the facility running smoothly from its cockpits, to its software and simulators, to its mission debriefing rooms where pilots get feedback on their performance during training.

In this highly realistic digital range, aviators experience

the consequences of their mistakes, including mission failure, loss of systems, and even loss of life. The JSE enables pilots to learn those hard lessons, immediately adjust, fly again, and continue the learning process to become a highly capable tactical aviator.

The JSE was initially designed to support F-35 Lightning's operational testing as there was no way to safely and adequately represent real-world conflict on an open-air range. Today, the DOD is scaling the Navy's technology for additional digital range facilities supporting programs like F-35, F-22, and E-2D. In addition, the DOD has made training in the JSE a formal part of the Navy's Strike Fighter Tactics Instructor Program—commonly known as TOPGUN.

Over the next year, NAWCAD will incorporate additional test and training cockpits including the F/A-18 Hornet, EA-18 Growler, and E-2 platforms to train fighters for future flight lines. The warfare center will also deploy its second training system onboard a Navy carrier, USS Abraham Lincoln (CVN 72).

The Naval Air Warfare Center Aircraft Division employs more than 17,000 military, civilian and contract personnel. It operates test ranges, laboratories and aircraft in support of test, evaluation, research, development and sustainment of everything flown by the Navy and Marine Corps. Based in Patuxent River, Maryland, the command also has major sites in St. Inigoes, Maryland, Lakehurst, New Jersey, and Orlando, Florida.

U.S. Army Awards Lockheed

Martin \$483M JAGM, HELLFIRE Follow-on Production Contract



JAGM (Lockheed Martin)

ORLANDO, Fla., April 1, 2024 – The U.S. Army awarded Lockheed Martin (NYSE: LMT) a follow-on production contract for [Joint-Air-to-Ground Missiles](#) (JAGM) and [HELLFIRE](#) missiles with a Program Year 3 (PY3) award total value of \$483 million.

This contract will provide JAGM and HELLFIRE procurement and production support for the U.S. Army, U.S. Navy and international customers. This contract is the third follow-on award that is a part of a multiple-year award that was initially awarded in [March 2023](#). The total contract award value is for up to \$4.5 billion through 2025.

“This follow-on contract signals the Army’s continued confidence in both the JAGM and HELLFIRE systems as premier defense capabilities when it comes to ensuring customer

readiness worldwide,” said Joey Drake, program management director of Multi-Domain Missile Systems at Lockheed Martin Missiles and Fire Control.

HELLFIRE currently has more than 30 FMS customers with new HELLFIRE international customer Poland included in the PY3 contract. This contract provides maximum flexibility to facilitate the procurement of both systems to multiple domestic and international customers, especially as the JAGM program anticipates a significant increase in international demand for the weapon system in coming years.

“We will be able to continue to provide procurement and production support for both systems, which is important because both are critical multi-domain combat solutions that protect and defend our armed forces and allies against ever-changing global threats,” said Drake.

Both the JAGM and HELLFIRE systems are designed and developed in Orlando, Florida. The weapon systems are manufactured across various Lockheed Martin facilities in Dallas, Texas; Orlando and Ocala, Florida; Archbald, Pennsylvania; and Troy, Alabama. With more than 140,000 missiles produced, JAGM and HELLFIRE continue to be the weapon of choice in critical, precision engagement opportunities.

US Coast Guard Cutter Escanaba returns home after supporting Operation Vigilant

Sentry



The crew of U.S. Coast Guard Cutter Escanaba (WMEC 907) conducts small boat personnel transfers with the U.S. Coast Guard Cutter Isaac Mayo (WPC 1112), in the South Florida Straits, Feb. 26, 2024. Escanaba's crew contributed to the interdiction and repatriation of over 100 migrants from Haiti and Cuba while patrolling the Coast Guard Seventh District's area of responsibility. (U.S. Coast Guard photo by Seaman Laura Holguin-Rojas)

U.S. Coast Guard Atlantic Area, April 1, 2024

PORTSMOUTH, Va. – The crew of U.S. Coast Guard Cutter Escanaba (WMEC 907) returned to their homeport in Portsmouth, Monday, following a 52-day patrol in the Florida Straits and Windward Passage.

Escanaba's crew contributed to the interdiction and repatriation of over 100 migrants from Haiti and Cuba while

patrolling in the Coast Guard Seventh District's area of responsibility. Escanaba deployed in support of the Homeland Security Task Force – Southeast initiative Operation Vigilant Sentry (OVS), which aims to disrupt and prevent unlawful migrant flow and human trafficking.

OVS is the 2004 Department of Homeland Security plan that provides structure for deploying joint air and surface assets and personnel to respond to irregular maritime migration in the Caribbean corridor of the United States. Its primary objectives are to protect the safety of life at sea while deterring and dissuading irregular, unlawful maritime migration alongside our federal, state, and local partners.

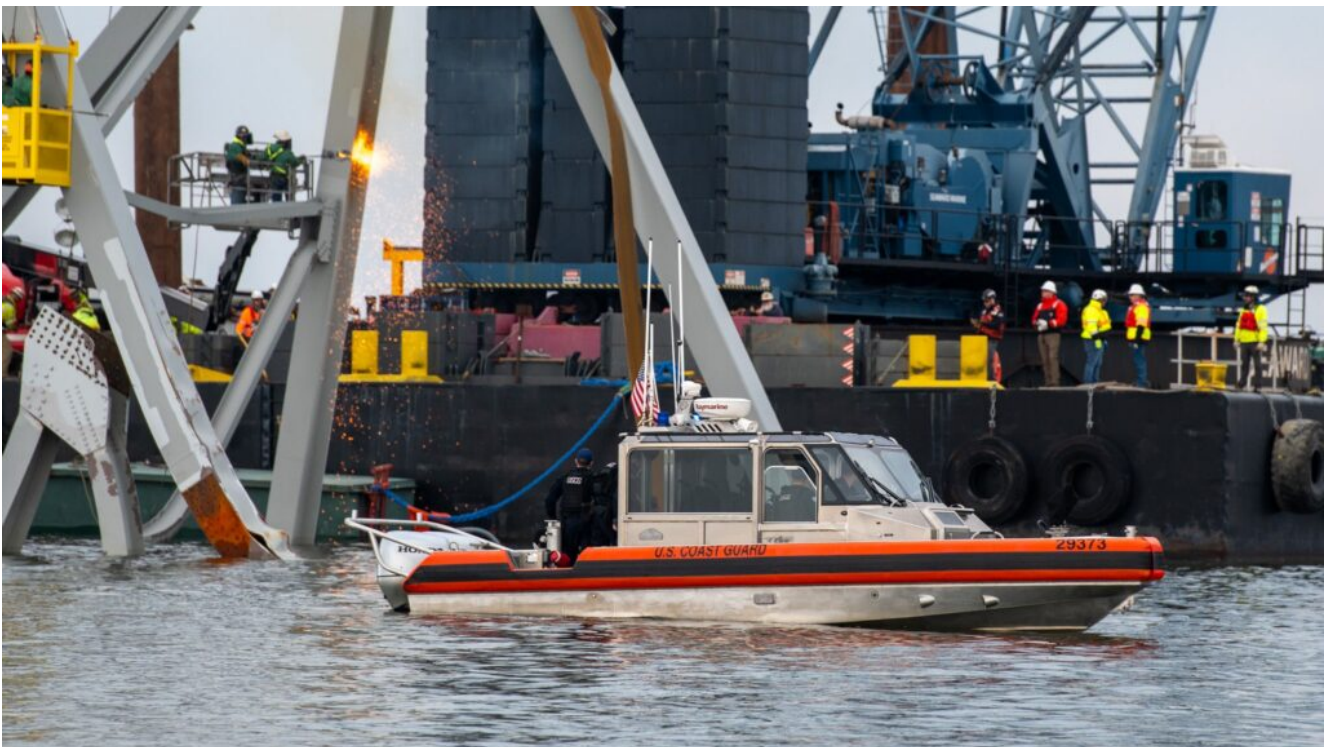
While on patrol, Escanaba served as the Commander Task Unit for operations between the Florida Keys, Cuba, and Haiti, coordinating the employment of numerous surface and air assets to aid in deterring illegal maritime migration ventures bound for the United States.

“This is Escanaba’s first patrol this year,” said Cmdr. Jared Silverman, commanding officer of Escanaba. “The crew responded exceptionally to this extremely challenging mission; they handled each and every migrant with respect and care, and truly embodied the Coast Guard’s humanitarian mission.”

Escanaba is a 270-foot, Famous-class medium-endurance cutter. Escanaba’s primary missions are counter-narcotics operations, migrant interdiction, living marine resources protection, and search and rescue in support of U.S. Coast Guard operations throughout the Western Hemisphere.

For information on how to join the U.S. Coast Guard, visit [GoCoastGuard.com](https://www.go CoastGuard.com) to learn about active duty, reserve, officer, and enlisted opportunities. Information on how to apply to the U.S. Coast Guard Academy can be found [here](#).

Joint Effort to Clear Baltimore Bridge Debris Launches Over Weekend



April 1, 2024 | By Matthew Olay, DOD News

Multiple Defense Department assets teamed with state, federal and private sector agencies in Baltimore Harbor Saturday to begin removing wreckage from the Francis Scott Key Bridge collapse.

“The continues to support the whole-of-government response in Baltimore. Through the Unified Command, the U.S. Coast Guard is coordinating this effort in collaboration with the U.S. Army Corps of Engineers, the U.S. Navy and many others,” Deputy Pentagon Press Secretary Sabrina Singh told reporters during a meeting today.

Crews of highly trained demolition experts began cutting into the top portion of the collapsed bridge's north side on Saturday, and the Army Corps of Engineers completed a required underwater survey – both necessary steps prior to removal of debris, Singh said.

Meanwhile, Naval Sea Systems Command is aiding Unified Command's efforts to clear out debris and reopen the harbor by contracting out the 1,000-ton lift capacity derrick barge Chesapeake, the 200-ton lift capacity revolving crane barge Ferrell and the 150-ton lift capacity crane barge Oyster Bay. All are on scene in Baltimore Harbor.

An additional, 400-ton lift capacity barge is scheduled to arrive next week, according to a news release distributed this afternoon by Navy public affairs.

On Sunday, Coast Guard Capt. David O'Connell, the federal on-scene coordinator for Key Bridge Response 2024, announced preparations for the establishment of a "temporary alternate channel on the northeast side of the main channel in the vicinity of the Francis Scott Key Bridge for commercially essential vessels," according to a Key Bridge Response 2024 press release.

"This will mark an important first step along the road to reopening the Port of Baltimore," O'Connell said.

In addition to over 1,000 engineering, construction, contracting and operations specialists with the Corps of Engineers, the Coast Guard-led Unified Command's additional components include assets from the Maryland Department of the Environment, the Maryland Transportation Authority, the Maryland State Police and a private sector crisis and emergency management consulting firm.

" ready to assist in further efforts to provide immediate response, reopen the port, rebuild the bridge and support the people of Baltimore," Singh said.

US Coast Guard Cutter Hamilton completes four-month deployment, returns to homeport in Charleston



Crews from Coast Guard cutters Hamilton (WMSL 753) and Munro (WMSL 755) exchange cutter boats in the Pacific Ocean, March 12, 2024. Hamilton and Munro are national security cutters. (U.S. Coast Guard photo by Ensign Ray Corniel)

U.S. Coast Guard Atlantic Area, April 1, 2024

NORTH CHARLESTON, S.C. – The crew of the U.S. Coast Guard Cutter Hamilton (WMSL 753) returned to their homeport in North Charleston, Friday, following a four-month maritime safety and security patrol in the Western Atlantic and Eastern Pacific

Ocean.

Patrolling in support of Homeland Security Task Force – Southeast’s Operation Vigilant Sentry and Joint Interagency Task Force – South’s (JIATF-S) counterdrug mission, Hamilton’s crew interdicted four vessels trafficking illicit narcotics, apprehended 10 suspected drug smugglers, rescued 47 migrants on an unsafe voyage at sea, and assisted six mariners in distress.

While underway, Hamilton worked to counter illicit maritime activities, strengthen partner nation ties, and facilitate the safety of life at sea. Hamilton interdicted 7,448 pounds of marijuana from four drug trafficking ventures worth more than \$7 million. In support of JIATF-S, Hamilton assisted Panamanian and Costa Rican partners with two additional interdictions for a combined 5,800 pounds of cocaine, worth approximately \$76 million.

On Christmas Eve, Hamilton’s crew spotted a U.S.-flagged sailing vessel with three people aboard, requesting assistance during rough seas. Hamilton sent over a rescue and assistance team to assist them with retrieving their adrift dinghy, restored their engines, provided medical aid, and escorted them safely back to Florida. In another case, Hamilton spotted a Panamanian fishing vessel’s crew waving for help. Hamilton deployed their rescue and assistance team to evaluate the nature of their distress. Once on-scene, they found three fishermen with their vessel adrift after fighting an engine fire. Hamilton provided medical aid and water while remaining on-scene until relieved by Panamanian authorities.

“I am so proud of our crew’s flexibility, resiliency, and superb execution of duty,” said Capt. Justin Carter, commanding officer of Hamilton. “We accomplished every task asked of us, whether countering drug smugglers, responding to unsafe migrant ventures, or aiding mariners at sea. Performing these missions required expert operation and maintenance of

our ship, boats, and aircraft, and our crew took care of each other through every challenge we faced.”

Hamilton also conducted at-sea trainings with Coast Guard cutters Munro (WMSL 755), Bear (WMEC 901) and an MH-65 helicopter crew from the Helicopter Interdiction Tactical Squadron.

Hamilton is one of four 418-foot National Security Cutters (NSC) homeported in Charleston. With its robust command, control, communication, computers, intelligence, surveillance, and reconnaissance equipment, the NSC is the most technologically advanced ship in the Coast Guard’s fleet. NSCs are a world-wide deployable asset that supports Department of Homeland Security, Department of Defense, and national objectives through drug interdiction, migrant interdiction, national defense, search and rescue, fisheries enforcement, and national intelligence collection.

For more information about Hamilton, visit <https://www.atlanticarea.uscg.mil/Area-Cutters/CGCHAMILTON/>.

For information on how to join the U.S. Coast Guard, visit GoCoastGuard.com to learn about active duty, reserve, officer, and enlisted opportunities. Information on how to apply to the U.S. Coast Guard Academy can be found [here](#).