

DHS S&T Funds Startup to Customize Language Translator for USCG

WASHINGTON – The Department of Homeland Security Science and Technology Directorate (S&T) has awarded myLanguage of San Jose, California, \$199,592 in Phase 1 funding to adapt and customize its language translation platform to support the U.S. Coast Guard (USCG).

“We look forward to working with myLanguage as they develop language translation solutions to enhance safe and efficient USCG missions,” said Wendy Chaves, chief of Coast Guard Research, Development, Test & Evaluation and Innovation.

Coast Guard operators must be able to communicate with vessel occupants, many who may be non-English speakers, while performing a variety of rescue and investigation missions. Accurate and swift translation of information is critical to the safety and security of USCG boarding teams and vessel occupants. S&T’s Silicon Valley Innovation Program (SVIP) Language Translator solicitation sought new capabilities to support the Coast Guard in facilitating real-time communication with non-English speakers and those who are unable to communicate verbally. The solicitation also included requirements for the language translation technology to be capable of operating both online and offline because many USCG interactions take place in extreme environmental conditions in locations without cell service or internet connection.

The current myLanguage platform is an online and offline voice-to-text speech recognition and text-to-text translation system that employs deep learning and artificial intelligence. In Phase 1, myLanguage will adapt its voice translation technologies for use in a rugged, hand-held mobile device that

can withstand extreme temperatures and is able to customize model designs and training language models to fit USCG use cases.

“The focus of the myLanguage technologies is to enable fluent conversations across language barriers,” said Melissa Oh, SVIP managing director. “This Phase 1 funding enables myLanguage to expand their product capabilities for commercialization and provide USCG with an innovative technology that strengthens operator safety and mission outcomes.”

Cutter Resolute Returns Home from 56-day Deployment



Resolute conducts an at-sea transfer with the CGC Diligence (homeported in Pensacola, Florida). The transfer included 77 additional Haitian migrants, their personal belongings, and a Creole interpreter. *U.S. COAST GUARD*

ST. PETERSBURG, Fla. – The crew of Coast Guard Cutter Resolute returns home to St. Petersburg, Florida, Oct. 16, following a successful 56-day Joint Interagency Task Force-South (JIATF-S) and Coast Guard District Seven (D7) Patrol in the Caribbean Sea, the Coast Guard 7th District said in a release.

During the patrol, Resolute interdicted multiple suspected smugglers on a go-fast vessel obtaining 279.5 kilograms of cocaine and rescued 260 Haitian migrants.

Resolute, with the assistance from a Customs and Border Patrol (CBP) maritime patrol aircraft, tracked and pursued a drug smuggling vessel for eight hours, culminating in a successful intercept and seizure. The suspected smugglers were detained

and later transferred for case disposition in the United States.

Due to increased political instability in Haiti, Resolute's tasking shifted to Alien Migration Interdiction Operations in the Windward Pass, specifically to overtly patrol and discourage unsafe maritime migration voyages. On Sept. 24, Resolute conducted one of the largest single-unit repatriations into Cap Haitien, Haiti in recent history. Small-boat crews conducted 78 consecutive transfers safely returning all 260 migrants and their personal belongings back to Haitian authorities.

On Sept. 22, Resolute interdicted an overcrowded sail freighter with 183 Haitian migrants including 17 children and infants aboard. Bound for the United States, the 55-foot vessel was dangerously overloaded and lacked sufficient navigation and safety equipment to make the journey. All 183 migrants were transferred safely to the cutter where they were provided food, water, shelter, and medical attention. In less than 24 hours, Resolute received an additional 77 migrants from another Coast Guard asset, raising the total count to 260.

"The migrant interdiction mission is always unique; while the migrants are attempting to escape the poor living conditions in Haiti, their unsafe voyages risk the lives of innocent people, including children," said Petty Officer 1st Class Joseph Wooley, a maritime enforcement specialist. "It is unfortunate to see, but it makes us feel good knowing that we potentially saved 183 people from capsizing and drowning at sea."

After a long and successful patrol, the crew is eager to return home and spend the holiday season with friends, family and loved ones.

"The crew's actions during this patrol were heroic and

inspiring. I am especially impressed with their professional dexterity and ability to shift from counter-drug operations to humanitarian missions in a moment's notice, embracing our service motto: Semper Paratus-Always Ready," said Cmdr. Justin Vanden Heuvel, commanding officer of Resolute.

Resolute is a 210-foot Reliance-class medium-endurance cutter and has a crew of 72. Resolute was commissioned on December 8, 1966, and is homeported St. Petersburg, Florida.

Navy's 7th Fleet Bolstered with New Ships



The Arleigh Burke-class guided-missile destroyer USS Ralph Johnson (DDG 114) arrives at Commander, Fleet Activities Yokosuka (CFAY) as one of the newest additions to Commander, Task Force (CTF) 71/Destroyer Squadron (DESRON) 15. *U.S. NAVY / Tetsuya Morita*

ARLINGTON, Va. – Recent ship transfers have added capability to the Forward-Deployed Naval Force of the U.S. 7th Fleet in the Western Pacific in recent months.

Ships are occasionally transferred to or swapped out with the Japan-based fleet to modernize its capabilities or to replace ships that are rotated to receive maintenance at U.S. shipyards.

The most recent addition to the 7th Fleet is the Lewis B. Puller-class expeditionary staging base ship USS Miguel Keith (ESB 5), which was commissioned on March 8 as the third ship of its class. Its sister ships, USS Lewis B. Puller (ESB 3) and USS Hershel "Woody" Williams (ESB 4), are assigned to the

U.S. 5th Fleet and U.S. 6th Fleet, respectively.

The Miguel Keith, nominally based in Saipan, has two mixed crews of Sailors and Civilian Mariners designed to rotate, keeping the ship deployed for longer periods. The ship is designed with a large flight deck and extensive command-and-control facilities to support expeditionary operations and can host helicopters, small boats, special operations forces, unmanned vehicles, mine countermeasures forces. It can support humanitarian and disaster-relief operations as well.

The new Flight IIA Arleigh Burke-class guided-missile destroyer, USS Ralph Johnson (DDG 114), arrived at Yokosuka, Japan, on Oct. 4, commander, Task Force 71/Destroyer Squadron 15 Public Affairs said in a release.

“Ralph Johnson comes over as one of the newest and most capable destroyers in the U.S. Navy,” said Capt. Chase Sargeant, commander, Task Force 71/Destroyer Squadron 15. “The addition of Ralph Johnson demonstrates our unwavering commitment to maintain maritime security in the Indo-Pacific alongside our alliances and partnerships.”

The Flight IIA Arleigh Burke-class DDG USS Dewey (DDG 105) arrived in Yokosuka on Sept. 8, to join the FDNF.

“Dewey is an excellent addition to our forward-deployed team,” Sargeant said in a release. “Dewey brings capability and lethality that enables U.S. 7th Fleet to defend U.S. and like-minded nation’s interests and supports a rules-based international order and free and open Indo-Pacific.”

Earlier, on Aug. 16, the Arleigh Burke-class DDGs USS Higgins (DDG 76) and USS Howard (DDG 83) arrived in Yokosuka. These ships are Flight II and Flight IIA DDGs, respectively, with ballistic-missile defense capability.

“These destroyers are some of the most capable ships our Navy has to offer,” added Sargeant. “Adding them to our forward

deployed forces is a clear signal of our continuing commitment to our partners and allies, and our mutual commitment to maintaining stable regional maritime security.”

One of the Navy’s oldest destroyers, the Flight I Arleigh Burke-class guided-missile destroyer USS John McCain, departed Yokosuka on Sept. 17, the ship’s public affairs officer said in a release, for assignment to the 3rd Fleet and a new homeport of Naval Station Everett, Washington. The John McCain had been a unit of the FDNF for 24 years, arriving in 1997. In addition to its operations for the 7th Fleet, the John McCain “also participated in several surge deployments to U.S. 5th Fleet in support of the USS Independence battle group in 1998 and USS Kitty Hawk strike group in 2002 and again in 2003 supporting Operations Enduring and Iraqi Freedom,” the release said.

“It is definitely a changing of the guard with USS John S. McCain and her crew departing the 7th Fleet after over 24 years in Japan,” Sargeant said. “The contributions of the current and all previous crews in defending peace and stability in the Indo-Pacific cannot be overstated, and the entire forward-deployed fleet wishes John S. McCain fair winds as she transfers to her new homeport of Everett, Washington.”

Earlier, on Aug. 18, the Flight I Arleigh Burke DDG USS Curtis Wilbur (DDG 54) departed Yokosuka after 25 years with the FDNF, the ship’s public affairs officer said in a release. The destroyer is now homeported with the 3rd Fleet in San Diego.

In addition to its 7th Fleet operations, the Curtis Wilbur deployed to the U.S. 5th Fleet area of operation conducting maritime interception operations in the Arabian Sea in support of U.N. resolutions in the region, and later supported Operation Enduring Freedom with the Kitty Hawk Battle Group.

“As the first Aegis destroyer forward-deployed to Japan, Curtis Wilbur leaves behind a legacy of warfighting excellence

and operational performance that set the standard for every destroyer that followed,” Sargeant said. “For the last 25 years, the ‘Steel Hammer of the Fleet’ boldly sailed the Indo-Pacific as part of the long grey line of warships of Destroyer Squadron Fifteen that maintained the freedom of the seas and protection of our national interests.”

USS Mustin (DDG 89), a Flight IIA DDG, departed Yokosuka on June 22 after 15 years with the FDNF. The destroyer now is a unit of the 3rd Fleet and is homeported in San Diego.

Also ending its FDNF tour was the Whidbey Island-class amphibious dock landing ship USS Germantown (LSD 42), which departed its homeport of Sasebo, Japan on Sept. 15 after more than a decade with the FDNF, said Amphibious Squadron 11 Public Affairs in a release.

“Germantown and the Sailors who have sailed with her have made an incredible impact across the entire 7th Fleet theater,” said Rear Adm. Chris Engdahl, commander of Expeditionary Strike Group 7. “Whether strengthening alliances and partnerships during a myriad of amphibious operations or conducting humanitarian assistance when people of the Indo-Pacific region needed it most, Germantown has always set the standard in support of a free and open Indo-Pacific region. A great ship and crew comes to replace them, but they will be missed.”

Germantown will be replaced at Sasebo later this year by sister ship USS Rushmore (LSD 47).

Three RAN Aircrew Safe after MH-60R Helicopter Ditched in the Philippine Sea



HMAS Warramunga (left) conducts a replenishment at sea with USNS Big Horn while sailing in company with HMAS Brisbane during a regional presence deployment. *ROYAL AUSTRALIAN NAVY / LSIS Daniel Goodman*

CANBERRA – Three crewmembers of a Royal Australian Navy (RAN) MH-60R Seahawk helicopter are safe after ditching their helicopter in the Philippine Sea during a routine flight overnight, the Australian Department of Defence said in an Oct. 14 release.

The aircraft was operating from HMAS Brisbane as part of a regional presence deployment with HMAS Warramunga, when the crew conducted an emergency landing in the water.

HMAS Brisbane deployed sea boats and rescued the crew approximately 20 minutes later. The crew received first aid for minor injuries upon their return to HMAS Brisbane.

Commander of the Australian Fleet, Rear Adm. Mark Hammond, commended the crews of both ships involved for their quick response to the emergency.

“The successful rescue is credit to the devotion to duty and skill of the officers and sailors of HMAS Brisbane,” Hammond said. “Their immediate actions ensured the survival of the aircrew, validating the significant training undertaken in the event an emergency of this nature occurs.”

Both ships continue to search the area for any debris, which will aid in determining the cause of the incident.

“With the aircrew safe, investigating the circumstances that

led to the helicopter ditching is the priority at the moment," Hammond said. "As a precaution, we have temporarily paused flying operations of the MH-60R Seahawk fleet."

The Department of Defence is reviewing the impact of the incident on Brisbane's and Warramunga's current deployment. Australia is planning on procuring 12 MH-60Rs to supplement the 24 already procured and delivered by 2016.

U.S. Navy Increases Contract for Sarcos Guardian DX Mobile Robotic Avatar System



The Sarcos Defense Guardian DX tele-operated robot at work.
SARCOS DEFENSE

SALT LAKE CITY – Sarcos Defense said Oct. 12 the U.S. Navy has exercised a contractual option to expand testing, evaluation and demonstrations of the Guardian DX teleoperated dexterous robotic system for Navy-specific tasks, with a focus on maintenance, modernization and sustainment requirements.

Sarcos Defense is a wholly owned subsidiary of Sarcos Technology and Robotics Corp., which develops robots that augment humans to enhance productivity and safety.

The Guardian DX robot is the defense-specific variant of the Guardian XT highly dexterous mobile robotic system, itself is a variant of the award-winning Sarcos Guardian X0 full-body, battery-powered industrial exoskeleton. The Guardian DX robot is a teleoperated, dual-armed dexterous robot designed to perform tasks with human-like dexterity while keeping the

operator at a safe distance in challenging and hazardous conditions, including at height. Its modular design enables the Guardian DX robot to be mounted to a variety of mobile bases.

“Consistent with the chief of naval operations’ readiness and modernization priorities announced earlier this year, we couldn’t be more proud to partner with the U.S. Navy to deliver innovative and cost-effective solutions to enhance our nation’s readiness at sea,” said Tom Jackson, president of Sarcos Defense. “The Navy’s exercise of this contract option is an important step in our efforts to commercialize the Guardian DX consistent with the Navy’s requirements.”

India, Japan Conclude Joint Naval Exercises in Arabian Sea



Navy ships from India and Japan take part in JIMDEX, a bilateral exercise in the Arabian Sea. *INDIAN NAVY*

A significant bilateral naval exercise just completed in the Arabian Sea. The navies of Japan and India conducted JIMDEX 2021, the fifth iteration of their joint maritime exercises, which ran Oct. 6-8.

The exercise was led by Rear Adm. Ajay Kochhar, flag officer commanding the Western Fleet of the Indian navy, and Japanese maritime Self Defense Force (JMSDF) Rear Adm. IkeuchiIzuru, commander, Escort Flotilla Three.

India's guided missile destroyer INS Kochi (D64) and guided missile frigate INS Teg (F45) operated with Izumo Class-multi-purpose destroyer Kaga (DDH 184) and destroyer JS Murasame (DD 101).

According to an Indian ministry of defense press release, the forces were engaging in a high tempo of operations focused on air, surface and sub-surface dimensions of maritime operations as well as the air domain.

"The complex maritime exercises undertaken will enable the two navies to further strengthen their already wide-ranging strategic partnership and, when required, to jointly safeguard their maritime interests and ensure peace, security and stability in the region."

Both navies share some similar platforms and systems, like the P-8 maritime patrol aircraft. Both navies operate indigenous ships and aircraft, like the Kochi and Izumo, which looks more like a helicopter carrier than a destroyer (at 27,000 tons fully loaded, Izumo is the largest ship in the JDMSF fleet). India's and the Russian designed stealth frigate Teg and MiG 29 fighters might be representative of potential adversaries.

During the exercises the units conducted over-the-horizon targeting, antisubmarine warfare, naval gunnery and underway replenishment. The ships' embarked cross-deck landings to demonstrate interoperability. The exercise involved what the Indian MoD statement described as "a high tempo of flying operations with MiG 29K fighters coming in for multiple simulated air strike on surface units."

India's cooperation with other navies may be seen as statement to an increasingly competitive China.

"The IOR [Indian Ocean Region] is quickly becoming the home of a contest between India and China," wrote Aman Thakker in *New Perspectives in Foreign Policy*, published by the Center for

Strategic and International Studies. “China has made aggressive moves to advance its strategic interests in the region, particularly by gaining access to military bases and strategic ports by employing illiberal and predatory economic practices.

“India now recognizes that it cannot allow China to replicate the playbook it used in the South China Sea and challenge territorial claims and international norms of freedom of navigation, overflight, and unimpeded commerce in the IOR,” Thakker wrote.

It is also significant for Japan in that it is conducting exercises far from home waters and with a nation other than the U.S., which can also be interpreted as a signal to China.

“The complex maritime exercises undertaken will enable the two navies to further strengthen their already wide-ranging strategic partnership and, when required, to jointly safeguard their maritime interests and ensure peace, security and stability in the region,” the Indian navy said in its statement.

Australia’s Request for More MH-60R Helicopters Approved By State Dept.



An MH-60R Seahawk helicopter assigned to the Swamp Foxes of Helicopter Maritime Strike Squadron (HSM) 74 flies in front of the guided-missile cruiser USS San Jacinto (CG 56). The U.S. State Department has approved a possible Foreign Military Sale

of 12 MH-60Rs. *U.S. NAVY / Chief Petty Officer Bruno Gaudry*
WASHINGTON – The U.S. State Department has approved a possible Foreign Military Sale to Australia of MH-60R Seahawk multi-mission helicopters and related services and equipment, the Defense Security Cooperation Agency said Oct. 8.

The deal has an estimated cost of \$985 million. Australia has requested 12 MH-60Rs along with their engines, mission systems, guns, space parts, technical documentation, logistics support and others, the release said.

“This proposed sale will improve Australia’s capability to perform antisurface and antisubmarine warfare missions along with the ability to perform secondary missions including vertical replenishment, search and rescue, and communications relay,” said a release announcing the approval. “Australia will use the enhanced capability as a deterrent to regional threats and to strengthen its homeland defense. Australia will have no difficulty absorbing this equipment into its armed forces.”

Australia previously ordered 24 MH-60Rs, the last of which was delivered to the Royal Australian Navy in July 2016.

The principal U.S. contractor will be Lockheed Martin Rotary and Mission Systems, Owego, New York.

Royal Navy Looks to Canadian Coast Guard for Arctic

Training and Expertise



The U.K. Royal Navy's HMS Lancaster recently returned from a deployment to the Arctic. *U.K. ROYAL NAVY*

The U.K. Royal Navy is learning the cold facts about operating in the Arctic from shipmates in the Canadian Coast Guard, who have a great deal of cold weather experience.

British sailors are training with Canadians to learn how to navigate through icy waters and how to break ice where necessary, while Canadian Coast Guard personnel will have operational training opportunities and gain experience with crewless technology with the Royal Navy, according to a press release from the Royal Navy.

An agreement to formalize the arrangement was signed between the two NATO nations at the Canadian Coast Guard's (CCG) headquarters in Ottawa by its commissioner, Mario Pelletier, and Second Sea Lord Vice Admiral Nick Hine on Oct. 8.

"I am delighted to sign this agreement that will see the Royal Navy and Canadian Coast Guard work even closer together in the Arctic, sharing and developing our ice experience, as we strive to become ever more interoperable and interchangeable," said Hine.

"The Canadian Coast Guard welcomes the opportunity to build on the existing close relationship between Canada and the United Kingdom. Through this memorandum of understanding, we will benefit from the Royal Navy's operational experience and expertise, and we look forward to sharing our skills and knowledge of the Arctic," said Pelletier.

The two services have worked together before. In 2020, several Royal Navy watchkeeping officers from HMS Protector, the UK's sole ice patrol ship, sailed with a CCG vessel to gain experience in ice operations.

“The sharing of the Canadian Coast Guard’s wide experience and expertise will mean British sailors are better equipped when sailing to the frozen region,” the Royal Navy statement said.

Canadian Coast Guard icebreaking vessels, from hovercraft to heavy and light icebreaking and long-endurance ships, keep Canadian ports open year-round, freeing ice-bound vessels, escorting ships through ice-covered waters and maintaining a constant presence the High North during the navigable season.

The Royal Navy has shown a renewed interest in the Arctic region in recent years because of its key strategic importance to the security of the U.K.

“Warships are a regular presence in the region, while Royal Marines train in Norway annually as the U.K.’s specialists in the cold weather warfare,” said the Royal Navy statement. “HMS Lancaster recently returned from a on a 3,000-mile round-trip through the Norwegian Sea and into the Arctic Circle – the latest Royal Navy vessel to head to the High North over the past few years.”

BAE Systems Successfully Tests APKWS Laser-Guided Rockets Against UAS



An artist’s conception of an APKWS strike against an unmanned aircraft. *BAE SYSTEMS*

HUDSON, N.H. – BAE Systems Inc. has successfully tested APKWS laser-guided rockets in precision strike tests against Class 2 unmanned aircraft systems at Yuma Proving Grounds, Arizona,

the company said Oct. 11.

The 2.75-inch test rockets combined standard M151 warheads and Mk66 motors with APKWS precision guidance kits and a newly developed proximity fuze, enabling them to engage and destroy airborne drones at a fraction of the cost of traditional counter-UAS strike capabilities.

“Unmanned aerial vehicles of all sizes are a growing threat increasingly deployed by adversaries around the globe,” said Greg Procopio, director of Precision Guidance and Sensing Systems at BAE Systems. “The flexibility and affordability of APKWS rockets make them a good choice for taking out small, tactical military drones. Our successful test strikes demonstrate the creativity of our engineers and an innovative and economical use of existing DoD materiel to address an emerging threat.”

BAE Systems conducted test fires and engineering tests to develop a capable system for U.S. armed forces and allies. The key to APKWS rockets’ counter-UAS capability is the innovative proximity fuze jointly developed by L3Harris Technologies and Technology Service Corp. The fuze combines target proximity detection and point detonation capabilities, and is a drop-in replacement for existing M423 fuzes, allowing APKWS rockets to destroy UAS without the need for a direct hit.

Unlike expensive C-UAS missiles, APKWS rockets do not need to lock on the target before launch, instead relying on semi-active laser guidance optics that activate on launch, saving warfighters precious seconds when it counts.

APKWS guidance kits transform unguided rockets into precision-guided munitions with explosive effects and range capabilities that make them well-suited for today’s dynamic military engagements. APKWS rockets have proven combat capabilities and the flexibility to strike a variety of stationary and moving targets from planes, helicopters, ground vehicles, boats, and

remote weapon stations.

Coast Guard Contracts Ameresco for First Battery Energy Storage System Project at Training Center Petaluma



An aerial photograph of Coast Guard Training Center Petaluma, the enlisted school for the service's food service specialists, health service technicians, storekeepers, yeomen, information technicians, electronics technicians, and operations specialists. *U.S. COAST GUARD*

FRAMINGHAM, Mass. and PETALUMA, Calif. – Ameresco Inc. has entered into a \$43 million Energy Savings Performance Contract with the U.S. Coast Guard at the service's largest west coast training facility, Training Center Petaluma.

The project will be the USCG's first battery energy storage system project and the Department of Homeland Security's largest solar renewable energy project integrated within the USCG's first fully functional, renewable energy-powered microgrid, the company said in a release.

Training Center Petaluma faces a range of energy security and resiliency challenges endemic to the climate and regional power infrastructure in northern California. In light of the regularity and severity of weather events and utility interruptions affecting the site, USCG competitively selected Ameresco in February 2021 to fast-track development of a comprehensive Energy Savings Performance Contract to enhance

the site's electric infrastructure and resiliency posture. The microgrid will integrate existing distributed backup generators with a new 5 megawatt (MW) solar array and an 11.6MWh battery energy storage system to power the entire site in the event of a loss of utility. Planned improvements also feature the deployment of new power distribution transformers, Smart controls in 10 buildings across campus, LED lighting improvements for over 8,000 fixtures, installation of new electric vehicle charging infrastructure and heating, ventilation, and air conditioning equipment upgrades.

"This contract award enables continuity of operations in an environment of unpredictable climate hazards and will increase Training Center Petaluma's relevance throughout the region, while sustaining our Coast Guard mission ready total workforce," said Capt. Steven Ramassini, commanding officer for the training campus.

Once completed, Training Center Petaluma will realize a cost savings of more than \$1.2 million in the first year alone. The project will also reduce the site's annual electricity and propane consumption by 8.7M kWh and 50.8 kgal, respectively.

"We are so honored to lead the design and development of this historic project for the United States Coast Guard," said Nicole Bulgarino, executive vice president, Ameresco. "The upgrades outlined integrate energy efficiency and clean onsite energy with advanced microgrid controls and significantly enhance the training facility's energy resiliency. The finished project will set a strong precedent for future Federal renewable generation and battery storage projects."

Construction on the project is set to begin in October 2021 and be complete by fall 2023.