Coast Guard Cutter Midgett visited Chennai, India during Western Pacific Patrol 2022

A search and rescue helicopter from the Indian Coast Guard hovers above the waters off Chennai, India, while U.S. Coast Guard Cutter Midgett (WMSL 757) transits in the background during a joint exercise on Sept. 19. The drills allow both countries to observe how each other respond during a variety of scenarios. *U.S. COAST GUARD / Petty Officer Steve Strohmaier*

CHENNAI, India – The U.S. Coast Guard Cutter Midgett (WMSL 757) departed Chennai, India, on Sept. 19 following the crew's third international port call during their months-long Western Pacific deployment to the region, Coast Guard Pacific Area announced Sept. 21.

Midgett's crew conducted bilateral in-port exchanges sharing expertise and best practices in Coast Guard missions with the

Indian Coast Guard while in Chennai, building upon the strong partnership between the two nations.

The Midgett visited with the U.S. Consul General of Chennai, Judith Ravin, the Indian coast guard East Region Chief of Staff, Satish Kumar, the Indian coast guard District 5 commodore and other local dignitaries while the Midgett was in Chennai.

Midgett's crew conducted bi-lateral underway joint exercises with the Indian Coast Guard just off the coast of Chennai, and these drills consisted of a search and rescue exercise, boarding of a target vessel, firefighting capabilities, and formation maneuvering.

"The U.S. Coast Guard has a longstanding commitment to our allies and partners in the Indo-Pacific," said U.S. Coast Guard Capt. Willie Carmichael, commanding officer of the Midgett. "We spent the past four days with our Indian Coast Guard partners working to advance our capabilities and interoperability through meaningful human interactions with our likeminded partners who share similar values and a commitment to a free and open Indo-Pacific."

Midgett is operating in support of United States Indo-Pacific Command, which oversees military operations in the region.

Operating under the tactical control of Commander, U.S. 7th Fleet, the cutter's crew plans to engage in professional and subject matter expert exchanges with regional partners and allies and will patrol and operate as directed during their Western Pacific deployment.

The Coast Guard provides expertise within the mission sets of search and rescue; illegal, unreported and unregulated fishing; maritime environmental response; maritime security; maritime domain awareness; aviation operations; interoperability; and humanitarian assistance and disaster relief.

The U.S. Coast Guard has a 150-year enduring role in the Indo-Pacific. The service's ongoing deployment of resources to the region directly supports U.S. foreign policy and national security objectives in the Indo-Pacific Strategy and the National Security Strategy.

Since 2019, the Coast Guard Cutter Bertholf (WMSL 750), Stratton (WMSL 751), Waesche (WMSL 751) and Munro (WMSL 755) have deployed to the Western Pacific.

Commissioned in 2019, Midgett is one of two Coast Guard legend-class national security cutters homeported in Honolulu.

Cutter Legare Returns from Three-Month Counter Narcotics Deployment

A USCGC Legare (WMEC 912) crew member reunites with his family at the pier in Portsmouth, Va., Sept. 21. *U.S. COAST GUARD / Petty Officer 2nd Class Brandon Hillard*

PORTSMOUTH, Va. – The crew of USCGC Legare (WMEC 912) returned to their homeport Sept. 21, after an 11-week counter narcotics deployment that included key partner nation engagements and search and rescue operations throughout the Eastern Pacific Ocean and Caribbean Sea.

Legare patrolled more than 15,000 nautical miles in support of Joint Interagency Task Force South and the 7th and 11th Coast Guard Districts, working in conjunction with U.S. Customs and Border Protection, the U.S. Navy, U.S. Air Force, and federal agents from throughout the U.S., the Royal Netherlands Navy, and partner nation coast guards in the Caribbean Sea and Eastern Pacific Ocean.

During the patrol, Legare successfully interdicted four smuggling vessels, including one specially designed low-profile craft, and seized more than 7,000 pounds of illicit narcotics, valued at approximately $67 million. The crew also offloaded approximately 24,700 pounds of cocaine and 3,892 pounds of marijuana, worth an estimated $475 million, at Base Miami Beach on Sept. 15.

The offloaded drugs were interdicted in the international waters of the Caribbean Sea and the Eastern Pacific Ocean by crews from His Netherlands Majesty’s Ship HNLMS Groningen (P843) of the Royal Netherlands Navy and embarked U.S. Coast Guard Law Enforcement Detachment 101; U.S. Navy ship USS Billings (LCS 15) and embarked USCG LEDET 401; and Coast Guard Cutter James (WMSL 754) and Legare (WMEC 912).

Legare also conducted an engagement with the Belize Coast Guard, strengthening an important partnership in joint efforts to combat transnational criminal organizations at-sea and enhance maritime security within the Americas.

“Legare’s crew has worked tirelessly for nearly three months,

and as a result significantly fewer drugs will make it to American streets. I am inspired by the way the crew respects and takes care of each other while executing these incredibly dangerous operations. I am honored to have the opportunity to sail alongside them," said Cmdr. Jeremy Greenwood, commanding officer of Legare.

Legare is a 270-foot Famous-class medium endurance cutter stationed in Portsmouth, Virginia.

USS Higgins Conducts Operations with Royal Canadian Navy in South China Sea

The Royal Canadian Navy Halifax-class frigate HMCS Vancouver (FFH 331) cruises behind U.S. Navy Arleigh Burke-class guided-missile destroyer USS Higgins (DDG 76) while conducting integrated operations in the South China Sea, Sept. 19. *U.S. NAVY / Mass Communication Specialist 1st Class Donavan K. Patubo*

SOUTH CHINA SEA – Royal Canadian Navy Halifax-class frigate HMCS Vancouver (FFH 331) concluded exercises in the South China Sea with Arleigh Burke-class guided-missile destroyer USS Higgins (DDG 76) Sept. 18, Commander, Task Force 71/Destroyer Squadron 15 Public Affairs announced Sept. 21.

Vancouver and Higgins conducted bilateral surface action group operations demonstrating interoperability in the execution of joint exercises in the South China Sea and highlighted the U.S. Navy's support to Canada's Indo-Pacific deployment and their presence and role in the Western Pacific.

"Working with USS Higgins in the South China Sea has been an incredible opportunity for HMCS Vancouver," said Cmdr. Kevin Whiteside, HMCS Vancouver commanding officer. "The two teams

seamlessly integrated, conducting a variety of training exercises together. As part of our deployment on Operation PROJECTION, Team Vancouver has been delivering robust capabilities, working with our partner navies since we departed home in June. It was awesome working with the Higgins team, demonstrating our commitment to promoting stability in the Indo-Pacific region."

The bilateral training between U.S and Canadian maritime forces served to strengthen skills in maritime operations, anti-submarine warfare operations, air warfare operations and maneuvering.

"It has been an honor to sail alongside HMCS Vancouver for the past few weeks," said Cmdr. Joseph McGettigan, Higgins commanding officer. "Operating with our closest allies and partners in the South China Sea provides us an opportunity to deepen our relationships as well as improve our capabilities as a combined force. Gaining familiarity with these waters and each other, provides us a greater ability to assure the stability of the region and demonstrates our shared commitment to a free and open Indo-Pacific."

Higgins is assigned to Task Force 71/Destroyer Squadron 15, the Navy's largest forward-deployed DESRON and the U.S. 7th fleet's principal surface force.

UK Royal Navy Acquires Latest Generation REMUS 100 UUVs

MCLEAN, Va. – HII announced Sept. 21 the delivery of three REMUS 100s unmanned underwater vehicles to the United Kingdom's Royal Navy. The new systems bring enhanced endurance and the latest generation of sensors and payloads, allowing for increased data quality and mission efficiency.

"We're proud to continue our longstanding partnership with the U.K. Royal Navy," said Duane Fotheringham, president of the Unmanned Systems business group at HII's Mission Technologies division. "Our newest REMUS 100s will bolster their existing fleet with increased capability for the U.K.'s subsea autonomous operations."

With these new systems, the U.K.'s Ministry of Defence has acquired a mix of REMUS 100s and REMUS 600s used for mine countermeasure operations over the last 20 years. The Ministry of Defence's first two REMUS 100s, acquired in 2002, are still in operation today.

"On behalf of the frontline users, I'm delighted to accept into service this refresh of REMUS 100," said Cmdr. Rory Armstrong, mine warfare lead at the U.K. Navy Command Headquarters. "Our use of the REMUS family of vehicles over

the last two decades has paved the way for a future mine countermeasures capability with autonomy at its core. These vehicles represent an exciting evolution of our existing small autonomous underwater vehicle fleet and will make a valued contribution to the Royal Navy as a force for good both in home waters and on an expeditionary basis.”

HII has sold more than 600 UUVs to 30 countries worldwide, including 14 NATO member countries like the U.K.

Inaugural Navy Exercise Tests Dozens of Ship Maintenance Technologies

From left: Subin Varghese, a doctoral student in electrical

engineering at the University of Houston, and Vedhus Hoskere, assistant professor of civil engineering at the university, launch a Skydio X2E unmanned aerial vehicle to scan the Self Defense Test Ship as Electrician's Mate 2nd Class Somantha Him-Gross and Hull Maintenance Technician 2nd Class Marco Perez of the Navy's Surge Maintenance program look on while underway off the coast of Port Hueneme, California, during the Repair Technology Exercise, or REPTX, on Aug. 29. *U.S. NAVY / Eric Parsons*

NAVAL BASE VENTURA COUNTY, Calif. – A variety of robots crawling in, on and below a decommissioned U.S. Navy destroyer, as well as replacement parts being additively manufactured on site, comprised just a small part of the activity that took place during the first-ever U.S. Navy Repair Technology Exercise, or REPTX, held Aug. 22-Sept. 1 at Naval Base Ventura County in Ventura County, California.

Teams from various companies as well as academic and government laboratories arrived from around the world with their technology applications to conduct demonstrations and field experiments aboard the decommissioned Spruance-class destroyer, known as the Self Defense Test Ship. The ship is operated by personnel from Naval Surface Warfare Center, Port Hueneme Division (NSWC PHD) in Port Hueneme, California, a field activity of Naval Sea Systems Command and located at NBVC.

NAVSEA's Naval Systems Engineering and Logistics Directorate Technology Office (NAVSEA 05T) sponsored REPTX 2022, which was hosted by NSWC PHD and held both pierside and aboard the SDTS, which took to the sea for the second week of the event.

The purpose of the inaugural exercise was to see if the technology can tackle real-world fleet maintenance and battle-damage related repairs of ships while operating in a true maritime environment – boosting the Navy's ability to keep ships at sea by aiding Sailors in carrying out needed repairs.

"The format provides a realistic fielding environment, both

pierside and underway, allowing teams the chance to field, adjust, learn and retest their solutions," said Janice Bryant, sustainment technology program manager at NAVSEA 05T.

"REPTX didn't just showcase technology but applied it to solve Navy challenges," Bryant added. "It was a problem-centric event that promoted collaboration rather than competition. Many problems require a complex solution, and multiple participants have independent pieces of that solution."

The more than 60 REPTX participants demonstrated technologies designed to address four focus areas: visualization, command and control aids, forward manufacturing and expeditionary maintenance.

The technology also needed to be capable of taking on a "day job" – in other words, serving a purpose that adds value to Navy ships and crew on a routine basis. And, it has to be user-friendly enough for a ship's crew to learn quickly.

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

Approximately 20 reservists from the Navy's Surge Maintenance (SurgeMain) program provided that ship's crew perspective as they got hands-on with much of the technology, learning how to operate the remote-controlled robotics, wearing augmented reality (AR) headsets to view repair instructions and videos, measuring corrosion on the deckplate of the SDTS, and more.

"The SurgeMain sailors typically don't get chances like this to provide input on new technologies, so it was hugely important for them to have that opportunity," said REPTX

Project Manager Suzie Simms. “At the end of the event, all of the SurgeMain sailors who participated said they want to be involved again next year.”

Scenarios where reservists were able to remotely control robots included identifying unknown objects on the side of the ship’s hull, detangling a fouled propeller, measuring the depth of metal wastage due to corrosion using ultrasonic waves, and inspecting tight spaces that would be difficult or dangerous for a human to go into.

Several companies brought AR technology to the SDTS, providing both communication and real-time visuals during simulated battle damage assessment scenarios as well as repair work instructions and videos that can be viewed through the headset while simultaneously looking at the damaged area.

Additive manufacturing technology installed in compact shipping containers both pierside and aboard the SDTS provided the capability to 3D print replacement parts as needed in a variety of materials.

Sarcos Mechanical Engineer Parker Hill (left) focuses on a monitor while guiding a remotely operated vehicle through an underwater demonstration as Hull Maintenance Technician Petty Officer 2nd Class Remedios Verduzconuñez with the Navy's Surge Maintenance program observes the ROV's progress on Aug. 25 at Naval Surface Warfare Center, Port Hueneme Division. The demonstration aboard the Self Defense Test Ship tested the ROV's ability to clear a rudder or propeller fouled by debris. *U.S. NAVY / Eric Parsons*

Other scenarios involved ship-to-shore communication systems, inspection and repair tools, and above- and below-water visualization devices.

Technology suppliers assisted SurgeMain reservists in using and demonstrating the technology aboard the SDTS during week two – this time in a true maritime environment as the vessel went underway off the coast of Port Hueneme. Unmanned aerial vehicle (UAV) operators got a chance to fly their camera-equipped drones around the ship to inspect it.

The main goals of the UAV demonstrations during REPTX were to identify issues like corrosion and misplaced items and to test

the UAVs' capabilities to aid in battle damage assessment and repair – a key focus area for the Navy – by rapidly creating digital models, among other things.

In one scenario, a flange with a leaky gasket was the focus of a collaborative effort on the last underway day of REPTX. The SDTS crew had identified the issue in the ship's state room, and several technology suppliers worked on a fix with SurgeMain sailors.

A reservist used an AR headset during the scenario to connect remotely with a subject matter expert elsewhere to help inspect and measure the faulty flange.

Armed with measurements of the flange assembly, two additive manufacturing companies participating in REPTX later 3D-printed parts that could be used to replace the flange and gasket in the state room.

Other underway demonstrations tested, repaired and monitored vital equipment on the ship.

Participants and organizers agreed that some of the best things to come out of REPTX were the spontaneous collaborations between attending organizations that revealed more efficient uses of their individual technologies when used together.

Along with the focus on collaboration, organizers designed the event to be educational for everyone involved.

"REPTX facilitated learning on both the government and participant sides," said Jason Bickford, research manager at NSWC PHD. "We've heard unanimous positive feedback from participants that it was a valuable experience for them."

The learning experience was impactful in that it was hands on, operationally based and held aboard an active ship.

Bryant said that next steps include determining how to invest

$2 million in follow-on funding to further develop technologies for fielding in the fleet. The REPTX team will also release to the public a comprehensive after action report on the event.

Meanwhile, discussions are underway for a sequel.

“Events like REPTX enable NAVSEA to be more agile and competitive in the future fight,” Bryant said. “Providing access to Navy assets, crew and problems allows traditional and non-traditional players to engage together, quickly and effectively. Continuing efforts like REPTX are essential as the Navy looks to build a more resilient and sustainable fleet and innovative and responsive industrial base.”

USS Zumwalt Operates with 7th Fleet for the First Time

USS Zumwalt (DDG 1000) approaches the Gov. William Preston Lane Memorial Bridge, also known as the Chesapeake Bay Bridge, as the ship travels to its new home port of San Diego, California, in 2016. *U.S. NAVY / Liz Wolter*

ARLINGTON, Va. — The guided-missile destroyer USS Zumwalt (DDG 1000) is operating under the command of the U.S. 7th Fleet for the first time, according to a Navy release.

The Zumwalt completed its first port call in Guam on Sept. 19, according to Commander, Task Force 71/Destroyer Squadron 15 Public Affairs. This "marks the farthest it's ever been from its home port of Naval Base San Diego since its commissioning," the squadron's release said.

While in the region, the Zumwalt is assigned to Task Force 71/Destroyer Squadron 15, the 7th fleet's principal surface force.

The Zumwalt is the lead ship of a three-ship class of DDGs, two of which have been commissioned and one is still under construction. All three are or will be assigned to Surface

Development Squadron One in San Diego.

The Zumwalt class has been selected to be the initial platform for the Navy's Conventional Prompt Strike capability. The ships' Advanced Gun Systems will be removed to make way for Large Missile Vertical Launch Systems to handle hypersonic missiles because the ship's existing Mk57 launchers for its Standard and Tomahawk missiles are too small to accommodate the CPS missile.

The Zumwalt will be the first ship to receive the modifications. The Navy's Supervisor of Shipbuilding, Conversion, and Repair, Bath, Maine, awarded General Dynamics Bath Iron Works a $20 million cost-plus-fixed-fee contract modification "for procurement of long-lead time material for the Large Missile Vertical Launch System [LMVLS] launch module fabrication on DDG 1000," an Aug. 18 Defense Department contract announcement said. Work is expected to be completed by June 2024.

The Navy plans to field the Conventional Prompt Strike capability on the Zumwalt in 2025. The Conventional Prompt Strike capability will be fielded later in the decade on the Block V version of the Virginia-class attack submarine.

The Zumwalt is commanded by Capt. Amy McInnis.

Cruiser USS Monterey Decommissioned

Sailors assigned to the USS Monterey (CG 61) man the rails during its decommissioning ceremony. Monterey was commissioned on June 16, 1990, and was a U.S. Navy warship for 32 years. *U.S. NAVY / Mass Communication Specialist 3rd Class Rodrigo Caldas*

NORFOLK, Va. – The crew of the guided-missile cruiser USS Monterey (CG 61) held a decommissioning ceremony onboard Naval Station Norfolk, Virginia, Sept. 16, USS Dwight D. Eisenhower (CVN 69) public affairs said in a release.

Plankowners, including the ship's commissioning commanding officer Capt. Joel Heaton, as well as former crew members, joined hundreds of attendees to celebrate the ship's distinguished 32-year history of naval service.

"Unique to the Navy, when we serve on a ship, it becomes part of us – I mean who we are, how we act, think and live. Similarly, we all in turn become part of that ship – it is a tremendously powerful legacy. This is most definitely the case with USS Monterey, she is certainly a testament to her excellent crews and she has been 'rough in battle and ready in

peace,'" said Vice Adm. Jim Kilby, deputy commander, U.S. Fleet Forces Command.

"Monterey executed 14 deployments, many availabilities, and as many training cycles. She was modified over her life to continue to be a relevant and a key ship in our fleet. She will leave a great legacy for many years in the future as those who proudly call themselves Monterey Sailors continue to serve our Nation."

Monterey's current Commanding Officer, Cmdr. David M. Schaller, spoke of the powerful bond between Sailors and their ships and the lives shaped aboard.

"Nobody joins the Navy to decommission a ship," said Schaller. "The Monterey crew performed their duties of putting her to rest in the most professional and exemplary manner, honoring her storied history and service to our nation."

Monterey was built at Bath Iron Works in Bath, Maine, and commissioned in Mayport, Florida, June 16, 1990. Monterey's namesake commemorates the battle fought Sept. 20, 1846, in the war with Mexico.

"She has served her crews and her nation well and rightfully takes her place among the ships that, for well over 200 years, have played an indispensable role in protecting the United States of America and serving her strategic interests across the world," said Schaller. "This ship and her crews will forever share a legacy that will be felt across the fleet for years to come."

7th Fleet Destroyer Transits Taiwan Strait with Canadian Frigate

The guided-missile destroyer USS Higgins (DDG 76) conducts a routine Taiwan Strait transit Sept. 20. Higgins is forward-deployed to the U.S. 7th Fleet area of operations in support of a free and open Indo-Pacific. *U.S. NAVY / Mass Communication Specialist 1st Class Donavan K. Patubo*

TAIWAN STRAIT – The Arleigh Burke-class guided-missile destroyer USS Higgins (DDG 76), in cooperation with Royal Canadian Navy Halifax-class frigate HMCS Vancouver (FFH 331), conducted a routine Taiwan Strait transit Sept. 20 (local time) through waters where high seas freedoms of navigation and overflight apply in accordance with international law,

U.S. 7th Fleet Public Affairs said Sept. 20.

The ships transited through a corridor in the Strait beyond the territorial sea of any coastal state. Higgins' and Vancouver's transit through the Taiwan Strait demonstrates the commitment of the United States and its allies and partners to a free and open Indo-Pacific.

Navy Evaluates New Crash Crane for Carrier Decks

The Navy's Common Aviation Support Equipment program office (PMA-260) is currently evaluating electromagnetic environmental effects on a crash and salvage crane at the

Aircraft Anechoic Test Facility in Patuxent River. *U.S. NAVY*
PATUXENT RIVER, Md.—The Navy's Common Aviation Support Equipment program office (PMA-260) is currently evaluating electromagnetic environmental effects on a crash and salvage crane at the Aircraft Anechoic Test Facility in Patuxent River, the Naval Air Systems Command said Sept. 20.

Electromagnetic waves within the radio frequency spectrum are used for communication, radar and information networks aboard ships. The E3 evaluation currently underway in the Aircraft Anechoic Test Facility will determine the crane's compatibility with the RF environment.

RF cannot be seen or felt, but it can negatively affect other electrical systems if those systems are not properly protected. Testing will determine if the crane has an appropriate level of emissions, can withstand a general level of radiation across the whole RF spectrum, and can withstand high levels of radiation tailored to frequencies in its operational environment.

"The new amphibious and carrier CSC designs will ensure the warfighter has the safest, most modern and reliable equipment possible for years to come," said Jim Choflet, PMA-260 crash crane team lead.

Crash and salvage cranes are critical pieces of equipment because no flight operations are allowed on ships without an operational CSC running on standby. They are used for lifting and moving disabled aircraft on carriers and landing helicopter dock flight decks. The new version, designed by industry partner Allied Systems Co., replaces the legacy carrier and amphibious assault crash cranes.

Bell Selects Sierra Nevada Corp. for its High-Speed VTOL Development Team

An artist's conception of Bell Textron's High-Speed Vertical Takeoff and Landing aircraft. *BELL TEXTRON*

National Harbor, Md. – Bell Textron Inc. has entered into a teaming agreement with Sierra Nevada Corp. for Bell's High-Speed Vertical Takeoff and Landing aircraft, Bell announced Sept. 19. As part of the collaboration, SNC will specifically support the design and development of mission systems for HSVTOL variants.

Bell's HSVTOL vehicles blend the hover capability of a helicopter with the speed, range and survivability features of fighter aircraft, with low downwash hover capability and jet-like speeds of more than 400 knots. This family of scalable aircraft concepts is designed to carry out U.S. Air Force and Special Operations Command missions across the full spectrum of conflict and political scenarios, including personnel recovery, contested logistics and intelligence, surveillance

and reconnaissance and strike.

“In an effort to advance technical maturity and deliver HSVTOL capability to warfighters sooner, Bell is assembling a team of industry-leading partners. We’re thrilled to have SNC onboard,” said Jason Hurst, vice president, Innovation, Bell. “We’ve made significant progress in Bell’s HSVTOL technology development in 2022, and we look forward to showing this progress in the upcoming year.”

Bell is currently executing its HSVTOL risk reduction effort and participating in the AFWERX HSVTOL Concept Challenge, a crowdsourcing effort for the Air Force and Special Operations Command. Bell is one of 11 companies from more than 200 challenge entrants selected to receive market research investments aimed at advancing HSVTOL technology.