

Rusty Murdaugh Named President of Austal USA



Austal USA President Rusty Murdaugh. *AUSTAL USA*

MOBILE, Ala. – The Austal USA Board of Directors announced the election of Rusty Murdaugh as President of Austal USA effective Sept. 9, the company said in Sept. 15 release. Murdaugh joined Austal USA in 2017 as chief financial officer and has been serving as interim president since February.

Murdaugh, a long-time veteran of the defense industry, brings sound business acumen and superior fiscal management skills to Austal USA. Before Austal, Murdaugh held leadership positions with Esterline Corporation, Avnet, United Technologies (formerly Goodrich), and Honeywell.

Austal USA Board Chairman Larry Cavaiola said, “Over the course of the last six months, the company has secured multiple contracts under Rusty’s leadership and is well-positioned for continued growth. Rusty has a clear strategic vision to grow the company’s business and lead Austal USA’s worldwide operations.”

As interim president, Murdaugh aggressively led the addition of steel shipbuilding to the Austal USA manufacturing operations and led the company’s facility expansion in Mobile by acquiring additional waterfront and services capability on the Mobile River.

“I am honored to be selected to lead this great company,” Murdaugh stated. “I am excited about the opportunity to lead the world’s finest shipbuilders, and I’m looking forward to the growth ahead in the coming years as we win new shipbuilding and ship maintenance contracts.”

The election comes as the company grows its diverse portfolio

of new construction, service and support, and autonomous vehicle contracts. The company has submitted a bid to build the U.S. Coast Guard's Offshore Patrol Cutter and is executing a preliminary design and concept study for the U.S. Navy's Light Amphibious Warship program. The company also recently secured two services and maintenance contracts, expanding its post-delivery business.

SeaRobotics to Develop Crawling Amphibious Breacher for U.S. Navy



An Assault Breacher Vehicle drives through a lane in a berm during breaching exercises aboard Marine Corps Base Camp Lejeune, North Carolina, 2014. The Navy is seeking an amphibious robotic breacher capable of neutralizing explosives. *U.S. MARINE CORPS*

STUART, Fla. – SeaRobotics Corp. has been awarded a U.S. Navy Small Business Innovation Research (SBIR) Phase I contract to develop a CRawling Amphibious Breacher (CRAB), an amphibious robotic crawler capable of proofing shoreline assault lanes and neutralizing explosive and non-explosive obstacles to ensure clear landing zones for armed forces personnel, the company said in a Sept. 15 release.

Phase I of the process (Navy SBIR 20.3) is to further develop an innovative but cost-effective means of demonstrating how SeaRobotics' proposed CRAB concept could operate in swarm formation to specifically disarm various mine types – buried and submerged – in surf and beach zones. As such, CRABs are required to be rapidly deployable from a surface or subsurface

marine asset in coastal waters (up to 400 meters from shore) in depths up to 12 meters (or approximately 40 feet.)

One of the other defined Key Performance Parameters is the capacity to drop GPS markers to accurately identify optimal assault lanes, made visible via a shared operating system that plots landing paths on a driver display aboard a command Amphibious Combat Vehicle (ACV).

“We are delighted to have been awarded this important SBIR Phase I contract,” said SeaRobotics president Don Darling. “Current advances in marine robotics are redefining what’s possible in terms of tactical explosive ordnance disposal, and the challenge of developing an amphibious crawler capable of operating eight-hour missions above and below the waterline in sand, mud, and shell soil sea floor conditions is a natural extension of our R&D efforts at SeaRobotics to engineer the next generation of autonomous, uncrewed systems for a range of defense applications.”

Phase II of the Navy SBIR 20.3 process is to manufacture a scaled prototype to demonstrate system performance and test the required range of operational parameters. Results will inform the necessary refinements for a Phase III development plan and ultimately transition the proposed technology to Marine Corps use.

**Vice Adm. Kilrain Nominated
as Assistant to Chairman of**

Joint Chiefs

Secretary of Defense Lloyd J. Austin III announced Sept. 14 the president has made the following nomination:

Navy Vice Adm. Colin J. Kilrain for appointment to the rank of vice admiral, and assignment as assistant to the chairman of the Joint Chiefs of Staff, Washington, D.C. Kilrain is currently serving as associate director for military affairs, Central Intelligence Agency, McLean, Virginia.

Northland Returns Home after 80-day Eastern Pacific Patrol, Miami Drug Offload



Coast Guard Cutter Northland crews rescued three people after their boat caught fire approximately 150 miles south of Golfito, Costa Rica, August 18, 2021. Maritime Rescue Coordination Centre Costa Rica contacted 11th Coast Guard District command center watchstanders to relay the report of a vessel fire and requested Coast Guard assistance. *U.S. COAST GUARD*

PORTSMOUTH, Va. – USCGC Northland (WMEC 904) returned to Portsmouth Sept. 13, following an 80-day patrol in the Eastern Pacific Ocean in support of the Coast Guard 11th District and Joint Interagency Task Force South, the Coast Guard Atlantic Area said in a Sept. 15 release.

The Northland's crew patrolled the Eastern Pacific performing counter-drug operations with the support of an aviation detachment from the U.S. Coast Guard Helicopter Interdiction

Tactical Squadron flying an MH-65 Dolphin Helicopter. In addition to Northland's HITRON detachment, aircraft crews from the U.S. Navy and Customs and Border Protection provided critical aerial surveillance and reconnaissance for the cutter throughout the patrol.

During the patrol, Northland successfully interdicted several suspected drug smuggling vessels. On Sept. 8, the cutter pulled into U.S. Coast Guard Base Miami Beach and offloaded 7,833 pounds of cocaine with an estimated street value of \$148 million. The cutter crew also transferred three suspected narcotics smugglers to Coast Guard Seventh District and U.S. Drug Enforcement Administration personnel, signaling the culmination of a successful joint interagency effort in the Eastern Pacific.

Aside from successfully interdicting suspected drug smuggling vessels, Northland maintained a maritime assistance presence in the region throughout the patrol. On Aug. 11, the Coast Guard Eleventh District relayed an alert from the Maritime Rescue Coordination Center Costa Rica reporting the fishing vessel Baula X on fire with three mariners trapped aboard. On Aug. 18, Northland launched the Dolphin crew in search of the boat. Upon successfully locating the burning fishing vessel, the helicopter crew guided Northland's small boat team to the location. They safely rescued the three fishers and delivered them to the nearby cargo vessel Avra GR, participating in the Automated Mutual-Assistance Vessel Rescue program.

When not actively chasing drug runners or rescuing fishers, Northland maintained a steady training regimen for new and veteran crewmembers on navigation, engineering, and nautical activities. Training for emergencies and routine operations is critical to sustaining Northland's peak mission effectiveness and is in keeping with the Coast Guard's motto, Semper Paratus – Always Ready.

"During this patrol, our crew showed terrific adaptability

when responding to equipment malfunctions, scheduling changes, issues spurred by the COVID-19 pandemic, and a litany of other challenges faced. Throughout all of this, the crew displayed tremendous determination and teamwork, resulting in multiple mission accomplishments. I am extremely proud of the effort put forth by Northland, our embarked aviation detachment, and all of the support elements that worked to ensure our safety and success throughout," said Cmdr. Patricia M. Bennett, Northland's commanding officer.

USCGC Northland is a 270-foot Famous-class medium-endurance cutter homeported in Portsmouth. The crew routinely deploys in support of counter-drug, migrant interdiction, fisheries, search and rescue, and homeland security missions.

Bell Completes 100th Consecutive On-Time Delivery of AH-1Z to Marine Corps



A Bell AH-1Z conducts flight testing at Bell's Amarillo Assembly Center before delivery to the U.S. Marine Corps. *BELL TEXTRON / Anthony Boyer*

AMARILLO, Texas – Bell Textron, a Textron company, has successfully completed its 100th consecutive on-time delivery of the AH-1Z aircraft to the U.S. Marine Corps, which began nearly four years ago, the company said in a Sept. 14 release.

Bell accomplished this milestone through tight coordination with its manufacturing and assembly facilities, UAW 218, numerous suppliers, and government partners. The H-1 series

consists of the AH-1Z Viper and UH-1Y Venom, which provide light attack and utility helicopter support to the Marines while maintaining a small logistical footprint through the 85% commonality between the airframes.

“Performance like this takes a lot of work, communication, and trust to ensure alignment between numerous partners, all working toward the same objective. I could not be more proud of our Bell employees.” said Mike Deslatte, Bell H-1 vice president and program director. “Our front line workers, engineers, and supply chain professionals all help support the Marines. Their work designing, manufacturing, and assembling critical components while ensuring quality parts reach the production line on time help the Marines ensure our nation’s security.”

Bell and its Team Viper/Venom partners collaborate with the U.S. Marine Corps H-1 Light/Attack Helicopter program (PMA-276) to provide integrated solutions and increase combat lethality and readiness. In addition to delivering production aircraft on time, Bell directly supports scheduled maintenance. The company is also working on new capability upgrades to equip the Marines with the most advanced technology available.

“This is a feat only possible through the determination of our production team and the program’s strong relationship with our industry partners and suppliers,” said Col Vasilios Pappas, PMA-276 program manager.

Bell is currently working toward the U.S. Marine Corps program of record and anticipates production of Marine Corps H-1 through 2022. The U.S. Marine Corps H-1 production contract is for 349 aircraft, consisting of 160 UH-1Y and 189 AH-1Z. Bell will continue manufacturing aircraft for foreign military customers including contracts for Bahrain AH-1Zs and a mixed Czech Republic fleet of both AH-1Zs and UH-1Ys.

CH-53K King Stallion Logs

First Successful Fleet Mission



A Marine Corps CH-53K King Stallion lifts a Navy MH-60S Knighthawk helicopter from a draw in Mount Hogue, California, Sept. 5, 2021. The Knighthawk conducted a hard landing during a search-and-rescue mission, which resulted in no casualties or injuries of its crew. The two-day operation was the first official fleet mission for the CH-53K King Stallion, as it is currently undergoing an operational assessment while the Marine Corps modernizes and prepares to respond globally to emerging crises or contingencies. *U.S. MARINE CORPS / Cpl. Therese Edwards*

NAVAL AIR STATION PATUXENT RIVER, Md. – The CH-53K King Stallion successfully recovered a Navy MH-60S Knighthawk helicopter from Mount Hogue in the White Mountains of California on Sunday, Sept. 5, the Naval Air Systems Command said in a release.

The two-day operation was the first official fleet mission for the Marine Corps' new heavy lift capability, which is in the midst of initial operational test and evaluation with Marine Operational Test and Evaluation Squadron One (VMX-1) at Marine Corps Air Ground Combat Center Twentynine Palms, California.

“VMX-1 received a request for assistance from the Naval Safety Center about an MH-60S Knighthawk that suffered a hard landing near Mt. Hogue [California], at an elevation of 12,000 feet mean sea level in July,” said Lt. Col. Luke Frank, CH-53K detachment officer in charge for VMX-1.

The MH-60S Knighthawk was sitting on a high-altitude ridge in

very rugged terrain near the California-Nevada line on July 16 following a hard landing. The helicopter was supporting a search and rescue effort for a lost hiker. All four crewmembers survived without injury and were rescued the following day.

According to Frank, both the MH-60S unit and the Naval Safety Center had exhausted all other resources for recovery, including Army National Guard, Navy and Marine Corps fleet squadrons. "They all lacked the capability to lift the aircraft without an extensive disassembly," he said.

VMX-1's CH-53K detachment quickly examined the environmental conditions and conducted a quick feasibility assessment of support and determined that the CH-53K could conduct the lift. The CH-53K fulfills the heavy lift mission of the Marine Corps as it greatly expands the fleet's ability to move equipment and personnel throughout its area of operations.

"After two weeks of exhaustive planning and assembling a team of more than 25 Marines and Sailors from VMX-1 and 1st Landing Support Battalion from Camp Pendleton, [California], we deployed two CH-53Ks to Bishop, California, and got to work," he said.

The CH-53K was designed to lift nearly 14 tons (27,000 pounds) at a mission radius of 110 nautical miles in high and hot environments, a capability that expands the service's range in supporting joint and coalition forces against potential adversaries.

The MH-60S weighed approximately 15,200 pounds and was positioned in a tight ravine at nearly 12,000 feet mean sea level and needed to be transported over 23 nautical miles to the Bishop, California, airport.

"After six months of flight operations with the CH-53K, the detachment had every confidence in the aircraft's abilities to conduct the mission safely. Our main concern was the

environmental factors ground support personnel would have to endure,” said Frank.

“This is exactly what the K is made to do,” he said. “Heavy lift is a unique and invaluable mission for the Marine Corps. Horsepower is our weapon system and the CH-53K is armed to the teeth. The entire team of Marines at VMX-1, 1st Landing Support Battalion, and NAS Fallon Search and Rescue were extremely motivated to execute this mission and we are all very proud to have completed this one flawlessly.

“To be the first group of professionals to complete a real-world, heavy lift/high altitude mission in support of a unit who thought all options were off the table is extremely rewarding,” said Frank. “This is sure to be the first of what will be many, many successful missions for this aircraft and for heavy lift squadrons.”

U.S. Navy, Boeing Conduct First MQ-25 Refueling Mission with F-35C



An unmanned Boeing MQ-25 T1 Stingray test aircraft, left, refuels a manned F-35 Lightning II, Sept. 13, 2021, near MidAmerica Airport in Mascoutah, Illinois. *U.S. NAVY*

ST. LOUIS – The U.S. Navy and Boeing have used the MQ-25 T1 test asset to refuel a U.S. Navy F-35C Lightning II fighter jet for the first time, again demonstrating the aircraft’s ability to achieve its primary aerial refueling mission, the company said Sept. 14.

This was the third refueling mission for the Boeing-owned test asset in just over three months, advancing the test program for the Navy's first operational carrier-based unmanned aircraft. T1 refueled an F/A-18 Super Hornet in June and an E-2D Hawkeye in August.

"Every test flight with another type/model/series aircraft gets us one step closer to rapidly delivering a fully mission-capable MQ-25 to the fleet," said Capt. Chad Reed, the Navy's Unmanned Carrier Aviation program manager. "Stingray's unmatched refueling capability is going to increase the Navy's power projection and provide operational flexibility to the Carrier Strike Group commanders."

During a test flight Sept. 13, an F-35C test pilot from the Navy's Air Test and Evaluation Squadron 23 (VX-23) conducted a successful wake survey behind T1 to ensure performance and stability before making contact with T1's aerial refueling drogue and receiving fuel.

"This flight was yet another physical demonstration of the maturity and stability of the MQ-25 aircraft design," said Dave Bujold, Boeing's MQ-25 program director. "Thanks to this latest mission in our accelerated test program, we are confident the MQ-25 aircraft we are building right now will meet the Navy's primary requirement – delivering fuel safely to the carrier air wing."

The T1 flight test program began in September 2019 with the aircraft's first flight. In the following two years, the test program completed more than 120 flight hours, gathering data on everything from aircraft performance to propulsion dynamics to structural loads and flutter testing for strength and stability.

MQ-25 is benefitting from the two years of early flight test data, which has been integrated back into its digital models to strengthen the digital thread connecting aircraft design to

production to test to operations and sustainment. Boeing is currently manufacturing the first two MQ-25 test aircraft.

T1 will be used to conduct a deck handling demonstration aboard a U.S. Navy carrier in the coming months to help advance the carrier integration progress.

Pentagon and Lockheed Martin Agree to F-35 Sustainment Contracts



Pilots with Marine Fighter Attack Training Squadron 501 (VMFAT-501) fly the F-35B Lightning II during the Marine Corps Air Station Beaufort Air Show, April 28. *U.S. MARINE CORPS / Warrant Officer Bobby J. Yarbrough*

FORT WORTH, Texas – The F-35 Joint Program Office awarded the Lockheed Martin industry team annualized contracts covering fiscal years 2021-2023 to support operations and sustainment of the global F-35 fleet, supporting mission readiness and further reducing costs, the company said in a Sept. 13 release.

The annual contracts fund critical sustainment activities for aircraft currently in the fleet and build enterprise capacity to support the future fleet of more than 3,000 F-35 aircraft. This includes industry sustainment experts supporting base and depot maintenance, pilot and maintainer training, and sustaining engineering for the U.S. and allies across the globe. It also covers fleet-wide data analytics and supply chain management for part repair and replenishment to enhance overall supply availability for the fleet.

“Together with the F-35 Joint Program Office, we recognize the critical role the F-35 plays in supporting our customers’ global missions and the need to deliver this capability affordably,” said Bridget Lauderdale, Lockheed Martin vice president and general manager of the F-35 program. “These contracts represent more than a 30% reduction in cost per flying hour from the 2020 annualized contract and exemplify the trusted partnership and commitment we share to reduce sustainment costs and increase availability for this unrivaled fifth-generation weapon system.”

The fiscal 2021-2023 contracts represent a planned next step in further reducing overall operations and support costs for the F-35 program, which are shared between government and industry. Lockheed Martin has reduced our cost per flight hour by 44% in the past five years, with a forecasted reduction of an additional 40% in the next five years. The cost savings in the fiscal 2021-2023 annualized sustainment contracts support Lockheed Martin’s efforts to realize these goals. The savings will be achieved through improved cost and velocity in the supply chain, continued reliability improvements, and greater manpower efficiencies to provide product support solutions across the growing, global fleet.

The contracts also pave the way for a longer-term, performance-based logistics (PBL) agreement for the F-35 program. PBLs are an industry best practice, facilitating agile sustainment solutions for the fleet and incentivizing even further affordability and performance results.

The F-35 Joint Program Office, together with each U.S. service, international operators and the F-35 industry team, leads F-35 sustainment and global support. The 2021 annualized sustainment contract will cover industry sustainment activities through Dec. 31, 2021.

Program data shows the F-35’s reliability continues to improve as the jet is approximately twice as reliable as fourth-

generation fighters. It also shows maintenance labor hours needed per flight hour are well within the contractual requirement, while the global fleet is averaging around 70% mission capable rates. Lockheed Martin has significantly lowered its share of cost per flight hour over the last five years, and the broader F-35 team is working across government and industry to achieve greater affordability.

More than 690 aircraft have been delivered and are operating from 21 bases around the globe. More than 1,460 pilots and 11,025 maintainers have been trained and the F-35 fleet has surpassed 430,000 cumulative flight hours.

Coast Guard Crews Observe Chinese Warships near Alaska



During a routine maritime patrol in the Bering Sea and Arctic region, U.S. Coast Guard Cutter Bertholf spotted and established radio contact with Chinese People's Liberation Army Navy (PLAN) task force in international waters within the U.S. exclusive economic zone, Aug. 30, 2021. All interactions between the U.S. Coast Guard and PLAN were in accordance with international laws and norms. *U.S. COAST GUARD / Ensign Bridget Boyle*

JUNEAU, Alaska – The U.S. Coast Guard demonstrated its commitment to the Bering Sea and Arctic region with deployments of national security cutters Bertholf and Kimball, and a U.S. Arctic patrol by icebreaker Healy, the Coast Guard 17th District said in a Sept. 13 release.

“Security in the Bering Sea and the Arctic is homeland security,” said Vice Adm. Michael McAllister, commander Coast

Guard Pacific Area. "The U.S. Coast Guard is continuously present in this important region to uphold American interests and protect U.S. economic prosperity."

Crews interacted with local, national and international vessels throughout the Arctic. During the deployment, Bertholf and Kimball observed four ships from the People's Liberation Army Navy (PLAN) operating as close as 46 miles off the Aleutian Island coast. While the ships were within the U.S. exclusive economic zone, they followed international laws and norms and at no point entered U.S. territorial waters.

The PLAN task force included a guided-missile cruiser, a guided-missile destroyer, a general intelligence vessel, and an auxiliary vessel. The Chinese vessels conducted military and surveillance operations during their deployment to the Bering Sea and North Pacific Ocean.

All interactions between the U.S. Coast Guard and PLAN were in accordance with international standards set forth in the Western Pacific Naval Symposium's Code for Unplanned Encounters at Sea and Convention on the International Regulations for Preventing Collisions at Sea.

The Bering Sea produces more than 50 percent of the nation's fish and shellfish harvest – worth more than \$5 billion annually – and is the gateway to the Arctic, which encompasses 900,000 square miles of the U.S. exclusive economic zone off the Alaskan coast.

Bertholf and Kimball are 418-foot legend-class national security cutters homeported in Alameda, California, and Honolulu, Hawaii, respectively.

Healy is a 420-foot medium icebreaker homeported in Seattle.

RE2 Robotics to Develop Underwater Autonomous System for U.S. Navy



RE2 Robotics will create an underwater robotic system for the autonomous neutralization of underwater mines. *RE2*

PITTSBURGH, Pa. – RE2 Robotics has received a \$9.5 million contract from the Office of Naval Research to create an underwater robotic system for the autonomous neutralization of underwater mines for the U.S. Navy, the company said in a Sept. 14 release.

The program, called Maritime Mine Neutralization System (M2NS), will utilize the RE2 Sapien Sea Class system to precisely place and attach neutralization devices to underwater mines and water-borne improvised explosive devices (WBIEDs).

RE2 will serve as the systems integrator for this program. In addition to RE2 Sapien Sea Class, the M2NS will use components, including RE2's advanced computer vision and autonomy software, RE2 Detect and RE2 Intellect, to enable the precise, autonomous, and clandestine neutralization of a target.

“The detection and neutralization of WBIEDs and other underwater explosives is a critically dangerous task for Navy divers. Consistent with our mission of improving worker safety, the M2NS will enable the Navy to find and autonomously neutralize targets in deep ocean waters, while experienced divers supervise from a safe distance,” said Jorgen Pedersen, president and CEO of RE2 Robotics.

The M2NS comprises best-in-class technologies such as RE2's Sapien Sea Class arms and VideoRay's Defender remotely operated vehicle, which both exhibit unprecedented power density. In particular, RE2 Sapien Sea Class arms, which were originally designed and developed for the ONR, feature a compact, strong, electromechanical design with human-like dexterity (seven functions per arm) that is neutrally buoyant. The fusion of these key technologies provides superior strength and precision while manipulating neutralization devices.

"The M2NS will use RE2 Detect computer vision software to locate targets underwater, and RE2 Intellect to autonomously and precisely place devices on those targets," said Amanda Sgroi, director of computer vision and autonomy at RE2. "We also will integrate new sensors to provide situational awareness and aid autonomy, allowing the system to potentially navigate to extended depths in the ocean."

In addition to defense tasks, the human-like capability of the M2NS allows it to be used for complex offshore infrastructure and maintenance applications in the oil & gas and renewable wind industries. For example, M2NS can be used for weld inspection of rig piles, ships and FPSO (floating production storage and offloading) systems, mooring inspection and measurement and valve inspection and manipulation.