

MBDA and Rheinmetall Win Contract for Naval High-Energy Laser System



An artist's conception of a laser weapon. MBDA SCHROBENHAUSEN/ DUSSELDORF, Germany – Germany's Federal Office for Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) has awarded ARGE consortium – consisting of MBDA Deutschland GmbH and Rheinmetall Waffe Munition GmbH – a contract to fabricate, integrate and support testing of a laser weapon demonstrator in the maritime environment, MBDA said in a Jan. 28 release. The order value is in the low double-digit million euro range.

Work will be shared out on a roughly equal basis. MBDA Deutschland is responsible for tracking, the operator's console and linking the laser weapon demonstrator to the command-and-control system. Rheinmetall is in charge of the laser weapon station, the beam guiding system, cooling, and integration of the laser weapon system into the project

container of the laser *source* demonstrator.

The demonstrator is to be fabricated, tested and integrated by the end of the 2021. Trials onboard the German Navy frigate F124 Sachsen are to take place in 2022.

“The contract is an important step on the path to an operational high-energy laser system, said Doris Laarmann, head of laser business development at MBDA Deutschland. “Our two companies will apply their respective strengths to make this project a success on behalf of the German navy. Once it’s installed, the demonstrator will also be used to test important aspects such as the interaction and function of the sensor suite, combat management system and effector as well as rules of engagement.”

Alexander Graf, head of Rheinmetall Waffe Munition’s laser weapons program, and Dr. Markus Jung, who leads the company’s laser weapon development effort, agreed, saying the contract marks a systematic extension of the functional prototype laser weapon successfully tested in recent years, with the experience gained now dovetailing into one of the most ambitious projects in the field of laser weapon development in Europe.

A breakthrough development in the history of defense technology, lasers engage targets at the speed of light, operating with great precision and producing very little collateral damage. A demonstrator system featuring these capabilities will soon be put to the test under highly realistic operating conditions onboard a German frigate.

Leonardo DRS Awarded Navy Contract for Technical Insertion of Surface Fleet Combat Management Systems



The Arleigh Burke-class guided missile destroyer USS James E. Williams (DDG 95) transits the Caribbean Sea, Jan. 16, 2021. Leonardo DRS has received a Navy contract to supply system hardware and life cycle support for Aegis and Ship Self-Defense Combat Management Systems, equipped on the Arleigh Burke class destroyers and other surface combatants. U.S. Navy / AW2 Timothy Hopkins

ARLINGTON, Va. – Leonardo DRS Inc. has received a contract from the U.S. Navy to supply critical system hardware and full life-cycle support for Aegis and Ship Self-Defense System Combat Management Systems, the company announced in a Jan. 27 release.

The cost-plus-fixed-fee and firm-fixed-price, indefinite-delivery/indefinite-quantity multiple award contract was awarded in December 2020 and is worth up to \$211.5 million.

Under the contract Leonardo DRS will provide sustainment of Technical Insertion (TI)-16 Combat Systems Processing, Network, Storage and Display Hardware fielded across the surface ship fleet. Included in the contract is the sustainment, manufacture, assembly, and testing of TI-16 hardware, spares; engineering services, procurement, and installation of ordinance alteration kits and related products.

Leonardo DRS is the prime contractor for the surface navy, producing consoles, displays and peripherals (CDP) and the Common Processing System (CPS) TI-16 for the Navy's surface combatants.

"We are excited about this award and proud to provide full life-cycle combat system hardware support to ensure fleet readiness remains high," said Tracy Howard, senior vice president and general manager of the Leonardo DRS Naval Electronics business. "Additionally, our extensive experience will bring increased capability to the Fleet as the Integrated Combat System is fielded over the next 5 years in support of these future U.S. Navy requirements," he said.

Work will be done at the Leonardo DRS Laurel Technologies facilities in Johnstown, Pennsylvania and Chesapeake, Virginia.

Coast Guard, Border Patrol Seize \$1.9 million in Cocaine; Apprehend 2 Smugglers



A U.S. Border Patrol K-9 rests after U.S. Ramey Sector Border Patrol agents, with the assistance of a U.S. Coast Guard HC-144 Ocean Sentry aircrew, apprehended two male Dominican Republic nationals and seized 157 pounds (71 Kilos) of cocaine with a wholesale value of \$1.9 million, during a maritime drug smuggling attempt near Villa Montana in Isabela, Puerto Rico Jan. 23. U.S. Border Patrol

AGUADILLA, Puerto Rico – A Coast Guard aircrew combined efforts with U.S. Border Patrol agents during a drug smuggling event Jan. 23 that resulted in the seizure of 157 pounds (71 Kilos) of cocaine and the arrest of two suspected smugglers from the Dominican Republic near Villa Montana in Isabela,

Puerto Rico, the Coast Guard 7th District said in a Jan. 27 release.

The estimated wholesale value of the seized cocaine is \$1.9 million.

The joint collaboration is the result of ongoing Caribbean Border Interagency Group CBIG multiagency efforts in their common goal of securing the borders of Puerto Rico against illegal threats.

“We continue to disrupt and apprehend smugglers that attempt to smuggle people and narcotics across our borders,” said Xavier Morales, chief patrol agent for the Ramey Sector.

“Once our crew located the vessel, U.S. Border Patrol responded quickly to seize the suspects and narcotics. Our partnership is integral to protecting our shores and keeping our community safe,” said Lt. Karl Alejandro, Coast Guard Air Station Miami HC-144 Ocean Sentry aircraft commander.

While on a routine patrol Saturday night, the crew of a Coast Guard aircraft detected a suspect 21-foot go-fast vessel, approximately four nautical miles northwest of Aguadilla, Puerto Rico. Coast Guard watchstanders in Sector San Juan alerted the U.S. Border Patrol from Ramey Sector and placed the Coast Guard aircrew in direct communication with responding Border Patrol units ashore. While maintaining aerial surveillance of the vessel, the Coast Guard aircrew vectored in the Border Patrol units to the location where the suspected smugglers made landfall. Shortly thereafter, the Border Patrol agents, which included a K-9 unit, apprehended the two men and seized 58 packages of cocaine.

U.S. Immigration and Customs Enforcement – Homeland Security Investigations assumed custody the contraband and the suspected smugglers for investigation and prosecution.

U.S., Swedish Naval Leaders: Total Defense Requires a Maritime-Aware Society



Artwork marks the spot in Sweden where a Soviet Whiskey-class submarine ran aground in 1981, and was spotted by a Swedish civilian. Wikipedia / Kallegauffin

ARLINGTON, Va. – Senior officers in the U.S. and Royal Swedish navies said that even with modern systems, maritime defense is enhanced by a maritime-aware society. Security is a function of a whole-of-society approach.

Speaking Jan. 26 in an American Enterprise Institute (AEI)

webinar, U.S. Navy Vice Adm. Andrew Lewis, commander, U.S. Second Fleet, and Rear Adm. Ewa Skoog Haslum, chief, Royal Swedish Navy, discussed “gray zone” threats in the maritime domain, with emphasis on the northern European waters.

“We need to think this as a total defense task to solve, because it’s not only the military force that can provide security,” Haslum said. “In Sweden we are rebuilding the total defense. We are looking at civilian authorities together with the military and together we are rebuilding a new kind of defense that really includes the whole society, because all of the agencies need to work together.”

Haslum stressed the importance of reliable and trustworthy information flow nationally and internationally, describing that flow as key to nations working together to maintain maritime security and a free flow of commerce. She also emphasized being ready to respond to unexpected scenarios, including being cut off from digital information or being subjected to manipulated information.

The moderator, AEI Resident Fellow Elizabeth Braw, recalled the “whiskey on the rocks” incident, a surprise appearance of a Soviet navy Whiskey-class submarine that ran aground on the coast of Sweden in 1981. She noted that it was a Swedish civilian who spotted the submarine.

Lewis praised the maritime awareness of Scandinavian societies.

“We have a lot to learn, not just in our military but in our society writ large, as a seagoing nation,” Lewis said. “That’s something we can take away from our partners. That is not something quite as lost in Sweden or Norway. They are very much maritime nations.”

He cited a loss of awareness in such institutions at coastwatchers and of the loss of skill such as celestial navigation, which the U.S. Naval Academy recently restored to

is curricula.

“When we lose Global Positioning [System], when we lose exquisite communications, or satellite communications – as we see in higher latitudes that’s very difficult to maintain – even when we lose line-of-sight electronic communications or digital capability, it goes back to a visual world, a world in which we need to rely upon [the] senses of our eyes and ears to do the things that we need to do.

“More and more, as the electromagnetic spectrum is infringed upon, and manipulated by nefarious actors, we have to rely upon what I would call mission orders, the way to operate tactically, operationally and strategically on intent, where you have very young operators and civilians who understand what they’re seeing and know how to report it or how to defend themselves,” he said. “That’s something we could educate our entire societies on, the existential threat to our way of life.”

**Coast Guard Cutter Tahoma
returns home after 58-day
patrol in Northern Atlantic**



Coast Guard members from U.S. Coast Guard Cutter Tahoma conduct a tow of fishing vessel Fearless 164NM east of Nantucket, Massachusetts, December 9, 2020. U.S. Coast Guard / Petty Officer 3rd Class Owen Hillberry

BOSTON – The crew of USCGC Tahoma (WMEC 908) returned to Kittery, Maine, Jan. 26 after a 58-day fisheries patrol in the Northern Atlantic, the Coast Guard 1st District said in a release.

The crew's efforts support the Coast Guard 1st District's living marine resource priorities of ensuring the safety of life at sea and protection of fisheries resources in a region home to one of the nation's largest economies.

"The value of U.S. commercial fisheries in 2018 was \$5.8 billion," said Rear Adm. Tom Allan, U.S. Coast Guard 1st District commander. "Illegally caught or misreported fish entering the marketplace puts the livelihood of honest fishermen at risk. During this patrol, the Tahoma crew supported our 1st District fisheries effort to protect the sustainability of the region's fish stocks and maintain a

level playing field for all Northeast fishermen. The U.S. Coast Guard is committed to combatting illegal fishing in New England.”

Over the course of the eight-week patrol, Tahoma’s crew conducted 28 at-sea law-enforcement boardings of commercial fishing vessels, resulting in the discovery of eight violations of safety and fishing regulations. The boarding team inspected each vessel to ensure they met fishing gear requirements, catch limitations and possessed required and serviceable safety equipment. The Tahoma crew also focused on overfishing prevention in protected and closed fishing areas.

During the patrol, Tahoma’s crew responded to three search and rescue cases resulting in nine lives saved. On Dec. 6, the crew received a report from the 1st District command center of the disabled fishing vessel Fearless, located 170 nautical miles east of Nantucket, Massachusetts. The Tahoma crew arrived on scene and towed Fearless 260 nautical miles over five days until relieved by a commercial tug near Buzzards Bay, Massachusetts.

They also responded to the disabled fishing vessel Angela Michelle, located 100 miles east of Portsmouth, New Hampshire. The Tahoma crew diverted to assist the fishing vessel ahead of a severe winter storm, safely bringing it into port with assistance from Coast Guard Station Gloucester on Christmas Eve.

“The search and rescue cases we’ve had reminded me of why I joined the Coast Guard – to save lives,” said Seaman Patrick Byrne, lead seaman of Tahoma. “The beginning of the patrol seemed to be slow, but as we got called on each case, the reason for why we’re out here became more evident. Us being out here makes a difference. We’re able to make sure crews of the fishing vessels like the Angela Michelle and the Fearless return home safely to their families for holidays.”

Tahoma is a 270-foot medium endurance cutter with a crew complement of 100. They conduct maritime enforcement and homeland security missions in support of Coast Guard operations throughout the Western Hemisphere.

Fairbanks Morse Awarded Contract to Service U.S. Coast Guard Cutters



A Coast Guard Station Boston crew transits between Coast Guard Cutter Escanaba and Coast Guard Cutter Spencer in Boston on Nov. 24, 2014. The Escanaba and Spencer are 270-foot Famous-class medium endurance cutters. U.S. Coast Guard / Petty Officer 3rd Class MyeongHi Clegg

BELoit, Wis. – Fairbanks Morse, a portfolio company of Arcline Investment Management, was awarded a six-year indefinite-delivery/indefinite-quantity (IDIQ) contract by the U.S. Coast Guard, the company said in a Jan. 26 release.

The agreement, worth approximately \$53 million, enables Fairbanks Morse to maximize and improve engine lifecycle support for the Coast Guard's 270-foot Famous-class cutters.

As part of the Famous class service life-extension program (SLEP), Fairbanks Morse was awarded this contract to provide services, personnel, facilities, expertise, technological information, special tools, supplies and incidental materials necessary to ensure the longevity of the fleet's 18-cylinder FM 251F engines. The contract also includes delivery and installation of new engines, spare parts and nonrecurring engineering work.

"Fairbanks Morse has been a trusted engine and service provider to the U.S. Coast Guard for many decades, and it's an immense honor to be selected to provide engines and services for its vessels," said George Whittier, chief executive officer of Fairbanks Morse. "We are fully committed to supporting our country's national defense by delivering reliable products and quality service that facilitate mission-critical operations."

Through an IDIQ contract, pricing for support services is streamlined under a single agreement, eliminating the administrative, time and cost burdens associated with working through an intermediate party. Fairbanks Morse provides factory certified original equipment manufacturer technicians who undergo rigorous qualifications to meet the company's high standards for delivering best-in-class support. These technicians will deliver enhanced performance and improved service life while ensuring the highest level of reliability and efficiency for Famous-class cutters.

The U.S. [Coast Guard](#) and U.S. [Navy](#) have turned to Fairbanks Morse for over 70 years to provide quality diesel engines for marine propulsion and ship service systems. Today, Fairbanks Morse engines are installed on approximately 80% of U.S. Navy

ships with a medium speed power application.

Metal Shark Developing Autonomous Naval Defense System for Marine Corps



Louisiana-based shipbuilder Metal Shark is developing the Long Range Unmanned Vessel (LRUSV), a tiered, scalable weapons system, for the United States Marine Corps. Metal Shark Jeanerette, La. – Louisiana-based shipbuilder Metal Shark has been selected to develop and implement the Long-Range Unmanned Surface Vessel (LRUSV) System for the U.S. Marine Corps, the company said in a Jan. 25 release.

The LRUSV System will usher in a new era of naval technology while increasing the lethality of U.S. forces, with a network of unmanned vessels traveling autonomously for extended ranges

and transporting loitering munitions to address targets at sea and on land.

This tiered, scalable weapons system will provide the ability to accurately track and destroy targets at range throughout the battle space. While fully autonomous, the vessels may be optionally manned and they will carry multiple payloads, which they will be capable of autonomously launching and retrieving.

Metal Shark has enlisted autonomous technology developer Spatial Integrated Systems (SIS), recently acquired by Huntington Ingalls Industries, to provide the autonomy solution for the LRUSV system. SIS is a leader in the development of multi-vessel collaborative "swarming" autonomous capabilities, sensor fusion and perception.

Under an Other Transaction Authority (OTA) agreement with Marine Corps Systems Command, Metal Shark will design, build, test and implement the vessels and handle the integration of the autonomy system and an advanced command and control (C2) software suite.

In addition to the autonomous LRUSV, Metal Shark will also produce manned support vessels for the LRUSV system using its 40 Defiant military patrol craft platform, which the builder is currently producing to create the U.S. Navy's new 40 PB patrol boat fleet.

"The LRUSV program represents a significant milestone for autonomous technology, for the defense world, and for the entire shipbuilding industry," said Chris Allard, Metal Shark's CEO. "We are thrilled to be integrating advanced autonomy and command and control capability into these highly specialized surface vessels to provide the Marine Corps with a next-generation system."

Under the OTA, Metal Shark will also provide the Marine Corps with associated program management, system engineering,

configuration management, quality assurance, logistical support, and the development of technical publications and manuals in support of the LRUSV program.

The LRUSV program is the latest success for Metal Shark's Sharktech Autonomous Vessels division, a wholly owned subsidiary launched in 2018 and specifically focused on the advancement of unmanned vessel technology.

In September, it was announced that the U.S. Coast Guard had selected a 29-foot Sharktech autonomous test vessel, equipped with autonomy by Boston-based technology developer Sea Machines, for evaluation by the USCG Research and Development Center.

In 2019, Metal Shark was selected by US Navy PMS 406 (Naval Sea Systems Command's Unmanned Maritime Systems division) for the Unmanned Family of Systems Multi Award IDIQ, a blanket Navy contact covering multiple topics in the autonomous space.

As a brand-agnostic technology integrator actively engaged with multiple developers in the unmanned space, Metal Shark's Sharktech division has also produced and delivered autonomous vessels equipped with autonomy solutions from L3 Harris (previously ASV Global).

"Metal Shark has designed, built, and delivered over 400 autonomous and remotely operated vessels to date," Allard said. "As we develop and deploy the LRUSV system for the Marine Corps, we will continue to work with clients across government and commercial markets, integrating the systems of multiple technology partners into our boats, solidifying our leadership position in the autonomous vessel space, and streamlining the path to autonomy."

Austin Sworn In as Secretary of Defense



Washington Headquarters Services Director David Muir swears in Lloyd J. Austin III as secretary of defense, the Pentagon, Washington, D.C., Jan. 22, 2021. Holding the Bible is the Junior Military Assistant to the Secretary of Defense, Marine Corps Lt. Col. Caleb Hyatt. DoD / Lisa Ferdinando

ARLINGTON, Va.— Retired Army Gen. Lloyd J. Austin III was sworn in Jan. 22 as secretary of defense at the Pentagon by Washington Headquarters Services Director David Muir after a morning confirmation vote from the Senate.

Austin issued the following message to the Defense Department the same day:

“I am honored to have this chance to serve again and to do so alongside you and your families. My wife, Charlene, and I know all too well the sacrifices you make to keep this country safe. That safety is job one, and I promise to work as hard as

you do at it.

“The way I see it, my job as Secretary of Defense is to make you more effective at doing yours. That means ensuring you have the tools, technology, weapons, and training to deter and defeat our enemies. It means establishing sound policy and strategy and assigning you clear missions. It means putting a premium on cooperation with our allies and partners. And it means living up to our core values, the same ones our fellow citizens expect of us.

“Right now, of course, doing my job also means helping our country get control of the pandemic, which has killed more than 400,000 Americans. You have already come to the aid of our Nation’s health care professionals. You can expect that mission to continue. But we must help the Federal Government move further and faster to eradicate the devastating effects of the coronavirus. To that end, we will also do everything we can to vaccinate and care for our workforce and to look for meaningful ways to alleviate the pressure this pandemic has exerted on you and your families.

“None of us succeeds at this business alone. Defending the country requires teamwork and cooperation. It requires a certain humility, a willingness to learn, and absolute respect for one another. I know you share my devotion to these qualities.

“I am proud to be back on your team.”

Rolls-Royce Secures Navy

Research Contract to Develop Innovative Debris Detection Technology



Rolls-Royce will further develop its engine FOD detection under a \$1 million U.S. Navy contract. Rolls-Royce RESTON, Va. – Rolls-Royce has been awarded \$1 million of research funding from the U.S. government for digital foreign object debris (FOD) detection technology, the company said in a Jan. 20 release.

The year-long research contract from the Navy will help further develop and validate Rolls-Royce's FanSense debris monitoring system, which is currently supporting the Pegasus engine.

FanSense works by analyzing the shaft speed signal of an engine and is able to detect any disruptions that arise as a result of a small object, such as stones or screws, striking an engine fan blade. The innovative technology will allow customers across civil and defense industries to detect much smaller debris entering the engine, enabling them to build a clearer picture of FOD damage and engine wear over time and help to identify airfields that need to improve their FOD

prevention practices.

“FanSense is an innovative and revolutionary Rolls-Royce digital technology being packaged and applied to our products,” said Paul Craig, president of the company’s Defence Services. “The research funding granted by the U.S. Navy will allow us to further enhance and build upon our pioneering technologies that will enhance safety, efficiency and deliver a cultural change for our customers.”

FOD is estimated to cost the global aviation industry billions of dollars per year in damage and disruption. The vast majority of ingested debris currently goes undetected – only when very large items are ingested do operators have any indication that something has made its way into the engine. Rolls-Royce will continue to work with a long-standing industrial partner, Roke, to deliver the contract.

Jonathan Sides, FOD chief engineer at Naval Air Systems Command, said, “Inlet debris monitoring technology is a critical element of the FOD mitigation portfolio, supporting the U.S. Navy’s initiative to save hundreds of millions in FOD repair costs.”

The FanSense technology adds to Rolls-Royce’s portfolio of FOD prevention offerings, including the FOD App, the FOD cloud data analysis service and FOD officers. The vision for FOD technology is to build a digital system that is able to predict FOD events before they occur by analyzing data collected from the app and using vehicle tracking sensors and debris tracking radars. FanSense adds a key missing piece to this system, determining the exact time and location of historic FOD events, which will enable customers to predict the conditions in which ingestion of a harmful object is likely to occur.

Royal Navy Ready to Deploy a Carrier Strike Group for First Time in a Generation



A VMFA-211 F-35B operates from HMS Queen Elizabeth. U.K. Royal Navy

Adm. Anthony David Radakin, First Sea Lord of the Royal Navy, said the upcoming deployment of the HMS Queen Elizabeth (R08) carrier strike group exemplifies the Royal Navy's commitment to global operations.

Speaking this week at the Surface Warships 2021 conference in London, Radakin said the U.K. continues to demand more from the Royal Navy's "equipment and people, deploying further, faster and longer to deliver U.K. forward presence around the

globe.”

“We, as a nation, have declared ourselves ready to deploy a carrier strike group for the first time in a generation,” Radakin said. “HMS Queen Elizabeth, one of the most advanced and capable aircraft carriers in the world, will deploy at the heart of a multi-national carrier strike group, with Royal Navy and RAF jets and helicopters embarked. She will sail through the Mediterranean, Suez, Indian Ocean and on into the Indo-Pacific, and, on the way, she will exercise with our allies and partners from around the world.”

The U.S. and U.K. defense secretaries made a joint declaration on Jan. 19 regarding the joint participation for the Queen Elizabeth Carrier Strike Group deployment this spring. “The leaders look forward to seeing the culmination of nearly a decade of U.S.-U.K. carrier cooperation when Carrier Strike Group 2021 sets sail from Portsmouth, UK later this year,” the statement said.

The inaugural deployment will include a submarine, destroyers HMS Diamond and HMS Defender, frigates HMS Kent and HMS Richmond, as well as USS The Sullivans (DDG-68) and a frigate from the Royal Netherlands Navy. The strike group will be supported by the Royal Fleet Auxiliary stores ship RFA Fort Victoria and new Tide-class oiler. The airwing will include jet and rotary wing aircraft from the Royal Navy and Royal Air Force, along with F-35B Joint Strike Fighters from U.S. Marine Fighter Attack Squadron 211 (VMFA 211).

VMFA 211 has been operating from Queen Elizabeth and helped the carrier strike group achieve its initial operating capability (IOC) declaration for the carrier strike group earlier this month.

According to a MOD UK statement, the CSG’s IOC means that all elements of the group from fighter jets to radar systems to anti-ship weapons have been successfully brought together and

operated.

“Both the air and naval elements of the CSG have now met this milestone, which includes qualified pilots and ground crews being held at short notice for carrier-based operations and trained to handle weapons and maintain the equipment,” the statement said. “Another marker of success at this stage includes the ability to deploy anti-submarine warfare capabilities such as frigates and destroyers, as well as both fixed and rotary wing aircraft including Merlin helicopters to operate alongside the carrier.”

The Queen Elizabeth was commissioned in 2017. With a displacement of 65,000 tons and 920 feet in length, she is the Royal Navy’s largest ship ever. Her sister ship, HMS Prince of Wales (R09), was commissioned two years later.

Radakin said the Royal Navy is taking a larger role in global operations. He pointed to recent deployments of ships like the amphibious assault ship HMS Albion and to the Pacific, and HMS Montrose (F236), which has been deployed in Bahrain, serving with the U.S. Fifth Fleet since April 2019.

“We didn’t just forward base her, she has been available 99 percent of the time, and has the lowest rate of defects of any ship in class,” Radakin said. “The successful Montrose model gives me confidence that we can manage deploying ships, and even start to imagine them never returning to U.K.”