

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.

Essex Amphibious Ready Group Enters 5th Fleet AOR



Amphibious assault ship USS Essex (LHD 2), middle, amphibious dock landing ship USS Pearl Harbor (LSD 52), left, and amphibious transport dock ship USS Portland (LPD 27), transit the Arabian Sea, Sept. 13. *U.S. NAVY / Mass Communication Specialist 2nd Class Brett McMinoway*

ARABIAN SEA – Amphibious assault ship USS Essex (LHD 2), flagship of the Essex Amphibious Ready Group (ESX ARG), along with amphibious transport dock USS Portland (LPD 27), dock landing ship USS Pearl Harbor (LSD 52) and embarked 11th Marine Expeditionary Unit (MEU), entered the U.S. 5th Fleet area of operations, Sept. 12, Petty Officer 2nd Class Brett McMinoway said in a Sept. 14 release.

While in the U.S. 5th Fleet area of operations, the ESX ARG and 11th MEU will operate and train alongside regional and coalition partners.

As an inherently flexible maneuver force, capable of supporting routine and contingency operations, the ARG/MEU's presence demonstrates the U.S. Navy and Marine Corps commitment to regional partners and maritime security.

The U.S. 5th Fleet area of operations encompasses about 2.5 million square miles of water and includes the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean. The expanse is comprised of 20 countries and includes three critical choke points at the Strait of Hormuz, the Suez Canal, and the Strait of Bab al Mandeb at the southern tip of Yemen.

Navy Awards \$500M Design Contract for Shipyard Modernization in Hawaii, Washington



Dry Dock 1 at Pearl Harbor Naval Shipyard is flooded during the undocking of the Los Angeles-class fast attack submarine USS City of Corpus Christi (SSN 705). City of Corpus Christi was in dry dock for a maintenance availability. *U.S. NAVY / Petty Officer 3rd Class Dustan Longhini*

JOINT BASE PEARL HARBOR-HICKAM, Hawaii – Naval Facilities Engineering Systems Command (NAVFAC) awarded a \$500-million indefinite-delivery/indefinite-quantity architecture-engineering contract Sept. 7 for structural and waterfront-

related projects at Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY & IMF) in Hawaii and Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) in Washington state, NAVFAC Announced in a Sept. 13 release.

The five-year contract will mainly support construction, repair, and alteration projects at both shipyards as part of the Navy's comprehensive Shipyard Infrastructure Optimization Program (SIOP) and will help ensure that both shipyards – originally designed and built in the 19th and 20th centuries – are able to maintain, modernize, and repair Navy ships and submarines and return them to the fleet on time.

“To create the public shipyards that our nation needs requires investments to improve their capacity and capability,” said Capt. Warren LeBeau, program manager for SIOP. “This contract directly supports the vital roles that Pearl Harbor Naval Shipyard and Puget Sound Naval Shipyard have in terms of our national defense by executing maintenance and modernization on submarines and aircraft carriers to provide combat-ready ships to the fleet.”

SIOP is a joint effort between Naval Sea Systems Command (NAVSEA), NAVFAC, and commander, Navy Installations Command (CNIC) to recapitalize and modernize the infrastructure at the Navy's four public shipyards, including repairing and modernizing dry docks, restoring shipyard facilities and optimizing their placement, and replacing aging and deteriorating capital equipment.

“SIOP will provide critical infrastructure investments into the shipyards that enable our Navy's lethality and ability to operate forward in the era of strategic competition,” said Rear Adm. Dean VanderLey, commander, NAVFAC Pacific. “The award of this contract provides NAVFAC with the capacity and capability to plan and execute critical NAVSEA and CNIC projects at Pearl Harbor Naval Shipyard and Puget Sound Naval

Shipyard to meet urgent fleet readiness needs.”

Honolulu, Hawaii-based WSM Pacific SIOP, a joint venture, was awarded the indefinite-delivery/indefinite quantity architect-engineer contract under a competitive process via the www.sam.gov website.

The Navy's Super Hornet Block III Takes to the Skies



F288, the first Block III F/A-18 Super Hornet, closes its landing gear after performing a touch-and-go near Boeing's St. Louis flight ramp. *BOEING / Mike Irvine*

St. LOUIS – The most advanced Super Hornet in history has completed its first flight, Boeing News Now said Sept. 10.

Boeing test pilots Ty “Grouch” Frautschi and Sam “Splat” Platt last week lifted off from Boeing's St. Louis flight ramp and checkout center in the first combat-capable Block III F/A-18 Super Hornet.

“It was a good day. The jet flew great,” Frautschi said. “It is a real pleasure to fly and I know the Navy is looking forward to getting all this capability that Block III is going to bring to the fleet.”

The previous 28 F/A-18 Super Hornet deliveries to the U.S. Navy have been fighters for the Kuwait Air Force as outlined by the Foreign Military Sales process. Block III is a return to putting new fighters in U.S. Navy squadrons.

“It means a lot to me, I was in the Navy for 20 years,” Platt said. “The reason I like to do this job is to bring these

airplanes back to the sailors I still care about.”

F/A-18 Block III capabilities include the advanced cockpit system (ACS) with a 10-inch-by-19-inch touch-screen display, enhanced networking, open mission systems, increased survivability and a 10,000-hour airframe. The ACS is the largest cockpit screen of any fighter in the world, shared with the F-15.

“It’s like the difference of a dial telephone and your cellphone,” Platt said. “All these integrated displays put on a big piece of glass where you can really get an idea of what the sensors are doing and have a much more tactical display for the operator. It’s a revolutionary increase in capability.”

Block III capabilities were developed in partnership with the Navy. The flight is the result of years of work and hundreds of Boeing employees – a fact not lost on the test pilots.

“It’s a team effort. There’s a lot of preparation that goes into not just getting ready for the flight but building it and even earlier than that – the engineering and development,” Fraustchi said. “It is not a short list of activities to get to today, that’s for sure, and we appreciate everything they do to keep us safe.”

The first production Block III F/A-18F is construction number F288.

Navy Establishes New Medal to

Honor Fallen Civilians



Photo of the Angela M. Houtz Medal for Fallen Civilians. The new award aims to honor Department of the Navy (DON) civilian employees who are killed or sustain serious injury through considerable personal sacrifice in the performance of their duties. *U.S. NAVY / Mass Communication Specialist 1st Class Ford Williams*

WASHINGTON – Department of the Navy (DON) civilian employees who are killed or sustain serious injury through considerable personal sacrifice in the performance of their duties are now eligible to receive the Angela M. Houtz Medal for Fallen Civilians, said Mass Communication Specialist 1st Class Ford Williams in a release.

The award honors the fidelity and essential service of civilian employees who were killed or sustain serious injury in the performance of their official duties as a result of criminal act, natural disaster, terrorist act, or other circumstances as determined by the secretary of the Navy.

“While Department of the Navy civilians may not be on the front lines, they do face many of the same dangers as our uniformed personnel because of where they work and what they do,” said Garry Newton, the deputy assistant secretary of the Navy for civilian personnel. “It was long past time to make it possible for commanders to fully recognize the service of all department personnel.”

The medal is named for Angela M. Houtz, a DON intelligence analyst who died during the terrorist attack on the Pentagon on September 11, 2001.

GA-ASI Flies MQ-9 in the Canadian Arctic



General Atomics Aeronautical Systems' MQ-9A "Big Wing" UAS flew in the hostile climate of the Canadian Arctic. *GA-ASI* SAN DIEGO – In a flight that originated from its Flight Test and Training Center (FTTC) near Grand Forks, North Dakota, General Atomics Aeronautical Systems, Inc. (GA-ASI) flew a company-owned MQ-9A "Big Wing" configured unmanned aircraft system north through Canadian airspace past the 78th parallel, the company said in a Sept. 10 release.

A traditional limitation of long-endurance UAS has been their inability to operate at extreme northern (and southern) latitudes, as many legacy SATCOM datalinks can become less reliable above the Arctic (or below the Antarctic) Circle – approximately 66 degrees north. At those latitudes, the low-look angle to geostationary Ku-band satellites begins to compromise the link. GA-ASI has demonstrated a new capability for effective ISR operations by performing a loiter at 78.31° North, using Inmarsat's L-band Airborne ISR Service (LAISR).

The flight over Haig-Thomas Island, in the Canadian Arctic, demonstrated the UAS's flexibility by operating at very high latitudes. The flight, which took off on Sept. 7 and returned to the FTTC on Sept. 8, was conducted with cooperation from the Federal Aviation Administration, Transport Canada and Nav Canada.

Covering 4,550 miles in 25.5 hours, it was one of the longest-range flights ever flown by a company MQ-9. The flight was performed under an FAA Special Airworthiness Certificate and a Transport Canada Special Flight Operations Certificate.

GA-ASI partnered with Inmarsat Government, a leading provider

of secure, global mission-critical telecommunications to the U.S. government in the design, acceptance testing and deployment of an enhanced SATCOM system. The SATCOM was one of the key enablers of the flight and consisted of a GA-ASI designed L-band high data rate system, as well as an Inmarsat low data rate backup datalink that could retain the aircraft's link to the ground control station even when operating in the high-latitude environment.

"As the global leader in UAS, we have enabled our UAS to operate in Arctic regions, over land and sea, where effective C2 and ISR-data transfer was previously not feasible," said Linden Blue, GA-ASI CEO. "As new customers come online, we want our aircraft to be able to provide them with the high data rate surveillance and high endurance that our aircraft are known for, and be able to do so in any environment."

GA-ASI coordinated between domestic and international airspace authorities for the flight. This is part of the company's ongoing airspace Integration initiative, designed to demonstrate how UAS can fly safely across international borders, in controlled airspace, and in this case, to extreme northern latitudes.

"At Inmarsat Government, we take pride in delivering SATCOM solutions that empower our customers' current and future UAS missions around the world, even in the most challenging environments," said Tom Costello, chief commercial officer, Inmarsat Government. "We are proud to partner with organizations like GA-ASI that enable the government and military to enhance their use of UAS and deliver the SATCOM required for full situational awareness and mission success."

MQ-9A has unmatched operational flexibility, and when modified with the Big Wing, it has endurance over 43 hours, speeds of 220 KTAS, and can operate at altitude of up to 45,000 feet. It has a 4,800-pound (2,177-kilogram) payload capacity that includes 4,000 pounds (1,814 kilograms) of external stores. It

provides long-endurance, persistent surveillance capabilities, with full-motion video and synthetic aperture radar/moving target indicator/maritime radar. An extremely reliable aircraft, MQ-9A Big Wing is equipped with a fault-tolerant flight control system and triple redundant avionics system architecture. It is engineered to meet and exceed manned aircraft reliability standards.

GA-ASI's newest models, the MQ-9B SkyGuardian and SeaGuardian, represent the next generation of UAS, having demonstrated airborne endurance of more than 40 hours, automatic takeoffs and landings under SATCOM-only control, and a detect and avoid system. Its development is the result of a company-funded effort to deliver a UAS that can meet the stringent airworthiness certification requirements of various military and civil authorities.

GA-EMS Receives Navy Qualification as an Approved Alteration Installation Team



The aircraft carrier USS Gerald R. Ford (CVN 78) departed Naval Station Norfolk to make the transit to Newport News Shipyard in support of her Planned Incremental Availability (PIA), a six-month period of modernization, maintenance, and repairs, Aug. 20, 2021. *U.S. NAVY / Mass Communication Specialist 1st Class Ryan Seelbach*

SAN DIEGO – General Atomics Electromagnetic Systems (GA-EMS) has been approved as an Alteration Installation Team (AIT), a qualification that enables the Navy to contract with GA-EMS subject-matter experts capable of independently performing

alterations and system installations onboard U.S. Navy ships during maintenance availability periods, the company said in a Sept. 9 release.

“AIT qualification is recognition of the outstanding work our teams have performed over the years installing and maintaining first-of-kind electromagnetic aircraft catapult launch and recovery systems on land-based sites and onboard Ford-class carriers,” said Scott Forney, president of GA-EMS. “The AIT designation provides ease of access for the Navy to contract GA-EMS’ integrated team of experts. Our team’s depth of knowledge and ‘hands-on’ skillsets building and maintaining these critical systems enables them to work independently to complete shipboard modification and installation tasks to help ready ships for redeployment within the allotted maintenance period.”

GA-EMS has made significant investments in developing its facilities, workforce, quality management, and ISO 9001-compliant processes to support a broad range of critical naval programs. GA-EMS will manage the AIT effort from its newly expanded Hampton, Virginia, facility, which provides close proximity to the Newport News shipyard where Ford-class carriers are under construction, and where the USS Gerald R. Ford (CVN 78) is undergoing a Planned Incremental Availability maintenance period. In addition, GA-EMS’ office in Patuxent River, Maryland, will serve as a customer engagement center supporting maritime and naval aviation programs, including delivery of the Electromagnetic Aircraft Launch System (EMALS) and Advanced Arresting Gear (AAG) to the Naval Air Systems Command for Ford-class aircraft carriers.

“The Navy regularly experiences the challenge of sourcing a qualified workforce when shipyards must simultaneously manage new ship construction and maintenance tasks for ships already in the inventory,” said James Donnelly, GA-EMS director of Maritime Program Operations. “Our decades of experience managing large, complex programs, and our expertise in the

design, manufacture, installation and maintenance of next generation system technologies such as EMALS and AAG have equipped GA-EMS to provide best-value support to meet the challenge. This expertise is applicable not only for Ford-class carriers, but for other ship classes in the U.S. Navy's inventory as well."

Coast Guard Continues to Support Hurricane Ida Recovery Efforts



Coast Guard Capt. Wade Russell, commanding officer of Marine Safety Unit Houma, reviews navigation charts with a member of the Navy Supervisor of Salvage and Diving in Morgan City, Louisiana, Sep. 9, 2021. *U.S. COAST GUARD*

NEW ORLEANS – The Coast Guard continues to respond to impacts to the waterways and assess the environmental threats across Southeast Louisiana Sept. 9, post-Hurricane Ida, the Coast Guard 8th District said in a release.

In partnership with the U.S. Army Corps of Engineers and the Navy Supervisor of Salvage and Diving (SUPSALV) the Coast Guard is continuing efforts to reopen waterways impacted by Hurricane Ida in the areas of Bayou Lafourche, Houma Navigation Canal and portions of the Intracoastal Waterway.

Obstructions to the affected waterways are being identified and removed to restore the area to pre-storm conditions.

To date, 25 obstructions comprised primarily of fishing vessels, crew vessels, and offshore supply vessels have been

identified in the Bayou Lafourche channel. Additionally, 30 submerged targets have been identified in the Houma Navigation Canal. Fifteen of those targets in the Houma Navigation Canal have been cleared or removed.

The Coast Guard also continues to receive and investigate all reports made to the National Response Center.

Coast Guard crews are working to identify and prioritize threats to the environment and navigable waterways through overflights and surface inspections of areas impacted by the storm.

The Coast Guard is working closely with the State of Louisiana, Environmental Protection Agency, and Department of Environmental Quality, to respond to reports of pollution.