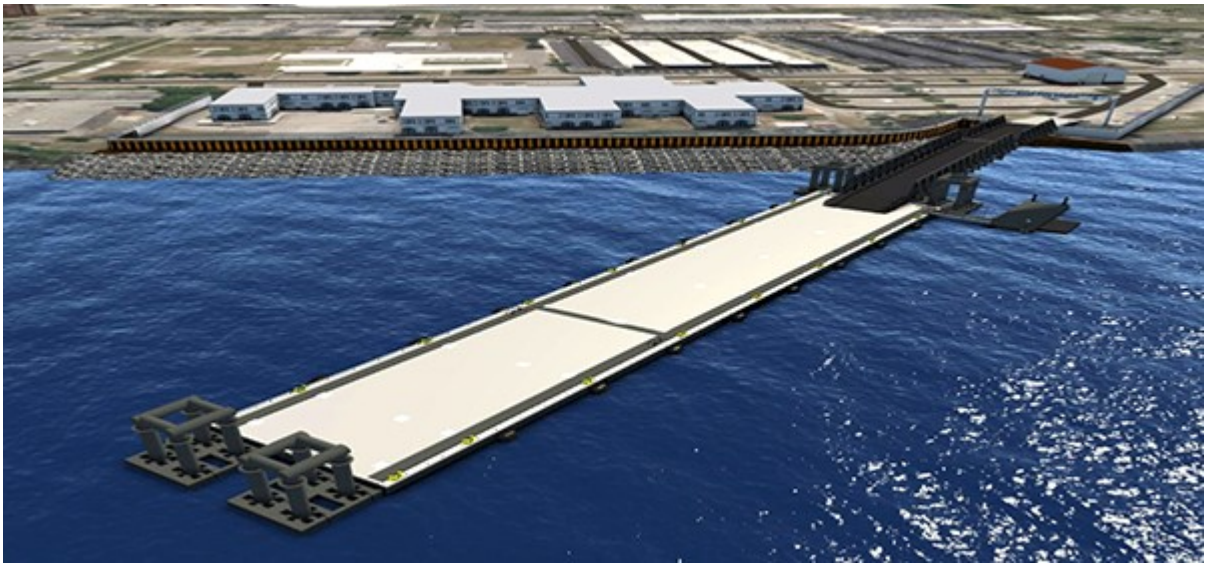
NOAA Breaks Ground on Renovations to Pier Facility in North Charleston, South Carolina, Funded by President Biden's Investing in America Agenda



Conceptual rendering of new NOAA ship pier and other improvements at the agency's pier facility in North Charleston, South Carolina. (Manson Construction Design/Build Team)

By David Hall, July 30, 2024

Today, NOAA officials were joined by regional partners to break ground on renovations at the agency's pier facility in North Charleston, South Carolina. The project is expected to be completed in 2026.

In September 2023, NOAA awarded $59.8 million to Manson Construction Company for the renovations. This important infrastructure project is partially funded by the Inflation Reduction Act, as part of President Biden's Investing in

America agenda.

“President Biden’s Investing in America agenda – and the historic Inflation Reduction Act – has made it possible for NOAA to renovate this pier facility in North Charleston and make way for more vital climate and ocean research for decades to come,” said U.S. Secretary of Commerce Gina Raimondo.

“Many of NOAA’s investments in infrastructure over the next several years are made possible because of funds from the Inflation Reduction Act,” said NOAA Administrator Rick Spinrad, Ph.D. “Investing in our shoreside infrastructure helps NOAA meet essential at-sea data collection requirements that support enhanced economic security, public safety and homeland security for many years to come.”

The renovations will include demolishing and building a new pier that includes shoreside power for ships, as well as a warehouse, sea wall, living shoreline and other supporting infrastructure. Reconstruction of the pier and other facility upgrades that support EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability. This project will enable NOAA ships Ronald H. Brown and Nancy Foster to have a designated place to dock and better accommodate NOAA research missions in the Atlantic. Both ships are homeported in Charleston.

“This pier and facility are integral to safe and efficient research ship operations in the area,” said NOAA Corps Vice Adm. (select) Nancy Hann, director of NOAA Marine and Aviation Operations and the NOAA Commissioned Officer Corps. “Our ships cannot efficiently complete their critical work without safe and reliable shoreside infrastructure.”

NOAA’s fleet of 15 research and survey ships are operated, managed and maintained by NOAA Marine and Aviation Operations. The fleet ranges from large oceanographic research vessels capable of exploring the world’s deepest ocean, to smaller

ships responsible for charting the shallow bays and inlets of the U.S. The vessels support a wide range of marine activities, including fisheries surveys, nautical charting and ocean and climate studies. NOAA ships are operated by NOAA Corps officers and civilian professional mariners.

Worldwide C-130J Super Hercules Fleet Soars Past 3 Million Flight Hours

From Lockheed Martin, July 22, 2024

FARNBOROUGH, England, July 22, 2024 /PRNewswire/ — Lockheed Martin (NYSE: LMT) announced today at the Farnborough International Airshow that the worldwide C-130J Super Hercules fleet recently surpassed 3 million flight hours. With 545+ Super Hercules delivered worldwide, this achievement reflects

the C-130J’s unmatched global reach, multi-mission versatility and proven tactical performance capabilities.

Lockheed Martin announced that the global C-130J Super Hercules fleet has surpassed 3 million flight hours.

Operators and crews from 21 nations contributed to this achievement, logging hours through 18 different mission requirements including combat, transport, aerial refueling, Special Operations, medevac, humanitarian relief, search and rescue, weather reconnaissance, firefighting and commercial freight delivery.

“From the highest landing strip in the world to the snow-packed runways of Antarctica and all the many mission locations in between, these 3 million hours represent the proven power and wide-reaching presence of the C-130J’s global fleet,” said Rod McLean, vice president and general manager of Lockheed Martin’s Air Mobility & Maritime Missions line of business. “In celebrating this achievement, we also honor the many crew members, maintainers and airlift partners who truly keep the global Super Hercules fleet ready for any and every mission requirement.”

3 million hours by the numbers

- These hours were logged beginning with the C-130J’s first flight on April 5, 1996, through the beginning of July 2024.

- Countries with C-130Js contributing to these flight hours include (in order of delivery) the United Kingdom, United States (the U.S. Air Force, Marine Corps and Coast Guard; Pallas Aviation), Australia, Italy, Denmark, Norway, Canada, India, Qatar, Iraq, Oman, Tunisia, Israel, Kuwait, South Korea, Kingdom of Saudi

Arabia, France, Bahrain, Bangladesh, Indonesia and Germa ny.

- Also contributing to these flight hours is the Lockheed Martin Flight Operations team, whose crews are the first to fly every C-130J produced, and the U.S. Air Force Defense Contract Management Agency crews that support C-130J test flights at Lockheed Martin's Aeronautics site in Marietta, Georgia, home of Super Hercules production line.

- Super Hercules variants used to log these hours include: C-130J and C-130J-30 (tactical airlifter), KC-130J (tanker), WC-130J (weather reconnaissance), EC-130J (information operations), MC-130J (Special Operations), HC-130J (search and rescue, U.S. Air Force and U.S. Coast Guard variants), AC-130J (gunship) and LM-100J (commercial freighter).

- Hours flown include test, training and operational missions on all seven continents.

Always evolving, continually innovating and ready for what's next, the Super Hercules leads the charge by setting standards and shaping the future of tactical airlift missions, offering a multitude of advantages found in no other medium-sized tactical airlifter in production or operation today.

These discriminators include proven operational readiness with the greatest ease of transition, increased reliability, superior tactical airlift and combat airdrop capabilities, certification by more than 20 airworthiness authorities, and engine-out performance with extended range. The C-130J also delivers unmatched interoperability with NATO and global air

forces, robust industrial partnerships and verified low life-cycle costs with significant fuel savings resulting in a reduced carbon footprint compared to other medium-sized jet airlifters.

See how and why the C-130J continues to be the worldwide choice in tactical airlift through the newest episode of "Into the Cockpit" on Lockheed Martin's YouTube channel, which offers exclusive behind-the-scenes access to the Super Hercules.

Defeat ISIS Mission in Iraq and Syria for January – June 2024

From U.S. Central Command, July 16,2024

TAMPA, Fla. – From January to June 2024, ISIS has claimed 153 attacks in Iraq and Syria. At this rate, ISIS is on pace to more than double the total number of attacks they claimed in 2023. The increase in attacks indicates ISIS is attempting to reconstitute following several years of decreased capability.

To continue the effort to defeat ISIS and prevent its ability to conduct external attacks, United States Central Command, along with our Defeat ISIS partners, Iraqi Security Forces and the Syrian Democratic Forces, conducted 196 Defeat ISIS Missions resulting in 44 ISIS operatives killed and 166 detained in the first half of 2024. In Iraq, 137 partnered operations resulted in 30 ISIS operatives killed and 74 ISIS operatives detained. In Syria, 59 operations conducted

alongside the SDF and other partners resulted in 14 ISIS operatives killed and 92 ISIS operatives detained.

The above operations resulted in eight senior ISIS leaders killed and 32 captured in both Iraq and Syria. These leaders include those responsible for planning of operations outside of Syria and Iraq, recruiting, training, and weapons smuggling. The removal of these individuals from their leadership positions further degrades ISIS capabilities to conduct external operations in the U.S. and allied nations.

The continued pursuit of the approximately 2,500 ISIS fighters at large across Iraq and Syria is a critical component to the enduring defeat of ISIS. Equally important are the ongoing international efforts to repatriate more than 9,000 ISIS detainees in detention facilities in Syria, and the repatriation, rehabilitation, and reintegration of more than 43,000 individuals and families from the Al Hol and Al Roj camps. This is down from the peak of over 70,000 in 2019.

“The global enduring defeat of ISIS relies on combined efforts of the Coalition and partners to remove key leaders from the battlefield and the repatriation, rehabilitation, and reintegration of families from Al Hol and Al Roj,” said Gen. Michael Erik Kurilla, commander of U.S. Central Command. “We continue to focus our efforts on specifically targeting those members of ISIS who are seeking to conduct external operations outside of Iraq and Syria and those ISIS members attempting to break out ISIS members in detention in an attempt to reconstitute their forces.”

AIRBUS U.S. UH-72 Lakota Fleet Surpasses 1.5 Million Flight Hours

From Airbus, 17 Jul 2024

Today, Airbus U.S. Space and Defense announced the UH-72 Lakota fleet surpassed 1.5 million flight hours with U.S. Army, U.S. Army National Guard, and U.S. Navy.

“This milestone is an incredible achievement for the Lakota fleet and reflects its impressive reliability over the past 18 years,” said Robert Geckle, Chairman and CEO of Airbus U.S. Space & Defense. “Having reached the one million flight hour milestone less than three years ago, this number is indicative of Lakota’s value as a staple of the U.S. military that is multi-mission capable, reliable, and affordable.”

With nearly ten different configurations, the Lakota provides unmatched versatility; more than 480 Lakota helicopters have been delivered to date.

Today, Army, Navy, and Army National Guard units use Lakota helicopters to perform essential training and real-world missions year-round across 50 U.S. states and territories.

Airbus delivered the first Lakota helicopter to the U.S. Army in 2006, and currently supports a fleet of 223 UH-72As that serve as the primary training helicopters for the service. 212 UH-72A and 18 UH-72B Lakota aircraft support Army National Guard operations including counter drug, search and rescue, and disaster response, among others. The helicopters are used at the U.S. Naval Test Pilot School to teach aviators rotary wing flying characteristics and test procedures.

“Our aircraft has proven its value to the U.S. Army and Navy by performing a range of important and often overlooked missions and will continue to deliver as needed for years to come,” said Didier Cormary, Head of Military Helicopter and Uncrewed Systems for Airbus U.S Space and Defense. “This milestone is a testament to the many U.S. military veterans who built the helicopter and take pride in supporting the aviators who serve our nation at home and abroad.”

Approximately one-third of the workforce in Columbus, Mississippi, who build and deliver the Lakota are veterans.

NOAA Orders Second High-Altitude Jet for Hurricane and Climate Research

Artist’s concept of the NOAA Gulfstream G550. (Image credit: Gulfstream Aerospace Corporation)

New aircraft, to join NOAA fleet in 2028

By Jonathan Shannon, July 16, 2024

Today, NOAA announced that it is exercising a $106 million contract option with Georgia-based Gulfstream Aerospace Corporation to purchase a fully modified G550 aircraft that will be specially configured to support hurricane and tropical storm forecasts, atmospheric research and other NOAA missions.

Funded in part by the Inflation Reduction Act, as part of President Biden’s Investing in America agenda, the fully instrumented aircraft is expected to join NOAA’s fleet in 2028. This will be NOAA’s second G550. The first, which NOAA ordered from Gulfstream in 2019, is expected to be delivered in spring 2025 and will replace NOAA’s aging Gulfstream IV-SP, which has been an essential part of the NOAA Hurricane Hunter fleet since 1996.

“These new state-of-the-art aircraft will greatly enhance NOAA’s ability to gather data critical to hurricane research and forecasting, atmospheric river research and forecasting, climate studies and other missions,” said NOAA Administrator Rick Spinrad, Ph.D. “Infrastructure investments like this

protect both lives and livelihoods."

Both twin-engine aircraft will be equipped with a variety of sensors for collecting atmospheric data, including a tail-mounted Doppler radar system. The G550s, which can fly fast, far and high with a range of more than 4,000 nautical miles and a maximum altitude of 51,000 feet, will paint a detailed picture of atmospheric conditions above and around hurricanes and other tropical cyclones – information essential for accurate forecasts.

Data collected by the G550s will supplement the critical low-altitude data collected by NOAA's pair of four-engine Lockheed WP-3D Orion turboprop aircraft, which fly directly into storms.

When aircraft data are available, hurricane track and intensity forecasts are improved significantly. Longer lead-time for tropical cyclone forecasts are imperative as coastal populations and infrastructure continue to grow, evacuation decision times increase and climate change raises hurricane intensity, rainfall and storm surges.

"The acquisition of these highly capable aircraft is a major step forward in the recapitalization of NOAA's aircraft fleet, which forecasters, researchers and decision-makers depend on for life-saving information," said Vice Adm. (select) Nancy Hann, director of the NOAA Commissioned Officer Corps and NOAA Marine and Aviation Operations.

Together, the G550s will help NOAA meet the requirements of the Weather Research and Forecasting Innovation Act of 2017 by creating additional capability for hurricane reconnaissance.

The G550s will be based at the NOAA Aircraft Operations Center in Lakeland, Florida, along with NOAA's other specialized environmental data-gathering aircraft. The fleet is operated, managed and maintained by a combination of NOAA Corps officers and civilian personnel.

Arnold Magnetic Technologies Highlights Custom Electromagnetic Capabilities for Aerospace & Defense Applications

ROCHESTER, N.Y. – Arnold Magnetic Technologies Corporation (Arnold), a subsidiary of Compass Diversified (NYSE: CODI) and leading global manufacturer of high-performance magnets and precision thin metals, highlights its custom electromagnetics used in aerospace and defense applications. Through exploring the deepest parts of space in search of near-Earth objects, Arnold's electromagnets (also known as solenoids) provide the flexibility needed in generating magnetic fields so necessary for critical waveguide applications.

As one of NASA's founding partners, Arnold's electromagnetics have been an integral part of nearly every government-sponsored satellite, including Doppler weather and radar systems and the US Air Force (USAF) Airborne Warning and Control System (AWACS). Arnold is also bringing its deep expertise to the development of the next generation quadrupoles and dipoles being used in electromagnetics for large fusion and pulsed power projects.

Arnold manufactures a wide variety of custom electromagnets that generate uniform or proportioned magnetic field shapes and with a wide range of magnetic field intensities. These electromagnets are either made up of tape wound foil wafers or built up from coils of wire.

All Arnold tape wound electromagnets feature coils that are electrically controlled to the precise field strength desired. Depending upon specific requirements, magnetic field distribution may be uniform, or it may have peaks, plateaus, and valleys along the axial length of the electromagnet, Shaped field electromagnets can be custom-designed to specific configurations with great precision. Coils may be of various widths within the electromagnet and they can be made interchangeable.

Customers can select nominal ID and OD to meet application size requirements. Also available are special designs that use chilled oil or liquid nitrogen to allow higher than normal current, generating up to 200 percent greater field intensity than an uncooled design.

Raytheon Technologies Awards CAES $172M Multi-Year Contract

Arlington, Va. – CAES, a leading provider of mission-critical advanced electronics, has received an award of $172.7 million from Raytheon Technologies (RTX) in support of a major international missile program. This award covers the next three lots of follow-on production for the missile data-link assembly.

“CAES is at the forefront of RF electronics and advanced EW capabilities, supplying critical components that our customers rely on,” said CAES President and CEO Mike Kahn. “CAES has been a long-time partner of RTX and we value our continued relationship supporting their mission and advancing

capabilities to defend and defeat future threats."

CAES is a critical subsystem provider to the missiles and munitions market on almost all key platforms covering a broad range of advanced electronic capabilities, including antennas, flight termination receivers, telemetry assemblies, preselectors, RF processors, converters, RF heads, RF front ends, receivers, and data links.

Partnering with customers, CAES designs and manufactures complex microwave and millimeter wave solutions for electronic warfare, radar, and other mission-critical needs. Learn more about CAES' advanced capabilities here.

BlueHalo Selected for U.S. Army Next Generation C-UAS Missile

From BlueHalo, June 27, 2024

The U.S. Army Combat Capabilities Development Command Aviation & Missile Center (CCDC AvMC) Aviation & Missile Technology Consortium® (AMTC) has down-selected BlueHalo as one of two vendors to move forward for the development of the Next-Generation Counter-Uncrewed Aerial System (C-UAS) Missile (NGCM). BlueHalo is leveraging a long corporate heritage in proven C-UAS technologies to expand its layered defense solutions with a long-range missile—entering the kinetic interceptor market space and providing an agile and alternate prime within the industrial base to counter the rapidly evolving threats.

“As we’ve seen in Ukraine, Jordan, Israel, and the Red Sea, drone attacks are increasing in number, sophistication, speed, and size—representing the fastest evolving threat vector of the modern era,” said Jonathan Moneymaker, BlueHalo Chief Executive Officer. “Adding the increased range, reduced time-to-target, and rapid launch capabilities of our technically superior NGCM to BlueHalo’s operational, industry-defining RF and directed energy C-UAS solutions gives unmatched, layered protection to our warfighters, allies, and assets. We are honored to work alongside AMTC to expand our nation’s kinetic C-UAS capabilities and continue BlueHalo’s legacy of delivering next-generation defense technology into the hands of the warfighter.”

Last fall, BlueHalo revealed its NGCM in response to the U.S. Government request for a more advanced C-UAS missile technology to meet the pacing threat. NGCM goes beyond current capabilities to increase lethality and range against Group 3 UAS and other larger air threats while —enabling a rapid delivery timeline to get the technology to the frontlines quicker and more cost-effectively than alternatives.

“BlueHalo’s NGCM provides an agile, disruptive, technically superior interceptor to the munition industrial base, delivering unmatched protection to our warfighters and transforming our nation’s air defense systems at mission speed,” said Jimmy Jenkins, General Manager, Defense Sector, and a former air defender in the US Army.

BlueHalo is the leading provider of innovative, effective C-UAS solutions for national defense customers providing critical products to essential Programs of Record with the Department of Defense. The company’s SkyView system offers autonomous radio-frequency (RF) detection and precision tracking of small UAS. Titan, another RF-based C-UAS solution from BlueHalo, can detect, track, and force drones to safely land without disrupting nearby communications or electronics. BlueHalo’s LOCUST Directed Energy Laser Weapon System combines

precision optical and laser hardware with advanced software, artificial intelligence, and processing. It has been successfully delivered and operationally deployed to identify, track, and engage a wide variety of targets with its hard-kill High Energy Laser. NGCM expands BlueHalo's portfolio of layered C-UAS air defense technologies to deliver best-in-class solutions to warfighters.

Kratos' Erinyes Hypersonic Test Bed Makes First Flight

From Kratos Defense & Security Solutions, June 27, 2024

SAN DIEGO, June 27, 2024 (GLOBE NEWSWIRE) – Kratos Defense & Security Solutions, Inc. (Nasdaq: KTOS), a technology company in the defense, national security and global markets, announced today that its Space & Missile Defense Systems Business Unit, a part of Kratos' Defense & Rocket Support Systems (DRSS) Division, supported the Missile Defense Agency (MDA) and the Naval Surface Warfare Center (NSWC), in the successful launch and flight of the Kratos Erinyes™ Hypersonic Test Bed, on June 12, 2024, from the NASA Wallops Flight Facility (WFF) in Virginia. This successful first flight of the Erinyes vehicle demonstrates a new and novel platform capability for rapid hypersonic experimentation for the U.S. Department of Defense.

The exercise, designated Hypersonic Test Bed-1 (HTB-1), demonstrated hypersonic flight that enabled the collection of data for multiple experiments to be provided to test teams for design validation and evaluation of new technologies.

"Hypersonic experimenters now have a robust and affordable

path across the TRL [Technology Readiness Level]. The ability to demonstrate experimental technologies on a real hypersonic flight testbed, without adding risk to programs of record, is game-changing," stated Dave Carter, president of Kratos' DRSS Division. "Following this success, we will turn to preparing for our next test, incorporating a new set of experiments. I couldn't be prouder of our team."

Eric DeMarco, president and CEO of Kratos, said, "The 100% successful flight of the Kratos Erinyes hypersonic vehicle with our MDA and Navy partners is representative of the power of Kratos' approach to be first to market with leading technology systems and products, which accelerates development and delivery schedules, while significantly reducing cost. Kratos' Rocket and Hypersonic systems development programs are positioned to disrupt the market with affordable, relevant systems, and we expect Kratos' hypersonic franchise, including Erinyes, Zeus, Oriole and other systems to be a key contributor to our expected future organic growth trajectory. Kratos is laser focused on expanding the U.S. National Security Industrial Base, increasing competition, reducing cost and delivering significant value to all Kratos stakeholders, including the MDA, U.S. Navy and other Government customers. Kratos has served the U.S. hypersonic community for decades through novel system and vehicle flight testing."

GA-ASI and Lockheed Martin Developing Net-Enabled

Weapons Capability for MQ-9B SeaGuardian

SAN DIEGO – 27 June 2024 – General Atomics Aeronautical Systems, Inc. (GA-ASI) and Lockheed Martin (NYSE: LMT) are collaborating to provide Net-Enabled Weapons (NEW) capability for GA-ASI's MQ-9B SeaGuardian Unmanned Aircraft System (UAS). The addition of NEW capability for SeaGuardian will bolster the Intelligence, Surveillance, Reconnaissance and Targeting (ISR&T) capability for the aircraft.

The NEW technology provides expanded sensor targeting applications for the precision targeting of long-range weapons. SeaGuardian's demonstrated persistence coupled with its vast array of precision targeting sensors enables more efficient kill chains, especially in contested environments. GA-ASI's MQ-9B SeaGuardian UAS, and SeaVue multi-role radar from Raytheon, an RTX business, will effectively leverage Lockheed Martin's extensive NEW expertise to further refine targeting capabilities for future theater deployments. Initial testing was completed on June 5, 2024, with F/A-18s on the U.S. Navy's W-289 test range in Southern California.

GA-ASI and Lockheed Martin have been developing Link 16 messages to communicate with weapons inflight using the SeaGuardian Systems Integration Lab (SIL) in preparation for overwater range test flight.

“This is a very important system attribute for SeaGuardian to enable naval long-range targeting CONOPS against high-end threats at much less risk to manned platforms,” said GA-ASI President David R. Alexander. “We appreciate Lockheed Martin’s support in helping us prove out the NEW technology, which is an important component of our ISR&T capability.”

MQ-9B SeaGuardian is a medium-altitude, long-endurance UAS. Its multi-domain capabilities allow it to flex from mission to mission. SeaGuardian has been used by the U.S. in several recent demonstrations, including Northern Edge, Integrated Battle Problem, and Group Sail.