# Lockheed Delivers 500th F-35 Aircraft; Strike Fighter Surpasses 250,000 Flight Hours

Aviation Boatswain's Mate (Handling) Enrico Rabina directs an F-35B Lightning II fighter to take off from the flight deck of the amphibious assault ship USS America. U.S. Navy/Mass Communication Specialist 3rd Class Vance Hand

FORT WORTH, Texas – Lockheed Martin and the F-35 Joint Program Office have delivered the 500th F-35 Lightning II strike fighter, the company said March 3. The F-35 surpassed 250,000 flight hours last month.

The 500th production aircraft is a U.S. Air Force F-35A, to be delivered to the Burlington Air National Guard Base in Vermont. The 500 F-35s include 354 F-35A conventional takeoff and landing variants, 108 F-35B short takeoff/vertical landing variants for the U.S. Marine Corps and 38 F-35C carrier variants for the Navy and international customers. The 250,000 flight hours include developmental test jets and training, operational, U.S. and international F-35s.

"These milestones are a testament to the talent and dedication of the joint government, military and industry teams," said Greg Ulmer, Lockheed's vice president and general manager of the F-35 program. "The F-35 is delivering an unprecedented fifth-generation combat capability to the warfighter at the cost of a fourth-generation legacy aircraft."

The F-35 operates from 23 bases worldwide. More than 985 pilots and over 8,890 maintainers are trained. Nine nations use the F-35 from their home soil, eight services have

declared initial operating capability and four services have employed F-35s in combat operations.

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# Cutter Munro Returns After Counter-Drug Patrol; $115 Million in Cocaine Seized

Lt. j.g. Michelle McGill serves as landing signal officer aboard the Coast Guard Cutter Munro as security response team members conduct fast-rope exercises from a U.S. Navy MH-60S Sea Hawk helicopter off the coast of San Diego on Dec. 16. U.S. Coast Guard/Ensign Brooke Harkrader

ALAMEDA, Calif. – The Coast Guard Cutter Munro returned home on March 1 after a 78-day deployment, during which the crew seized an estimated $115 million worth of cocaine from suspected smugglers in the eastern Pacific Ocean, according to a Coast Guard Pacific Area release.

The crew patrolled known drug-transit zones of the eastern Pacific from late December to mid-January and interdicted three suspected drug-smuggling vessels that carried 6,680 pounds of pure cocaine.

The cocaine seized by Munro's crew and three other Coast Guard cutters was part of a nearly 20,000-pound haul of the drug offloaded in San Diego on Feb. 11.

This patrol was Munro's second deployment to the eastern Pacific since the cutter's 2017 commissioning. Last July, Vice

President Mike Pence attended Munro's offload of more than 39,000 pounds of cocaine and 933 pounds of marijuana worth more than $500 million. That offload included contraband found aboard a self-propelled, semi-submersible vessel interdicted by Munro's crew on June 18 that was carrying more than 17,000 pounds of cocaine.

Following February's offload, the crew began a multiweek tailored ship's training availability – a set of drills, inspections and exercises that assess a ship's mission readiness and damage control capabilities. The crew passed all 136 required drills, with an overall average of 97%.

"I truly could not have asked for a better crew with whom to share these memories, but we didn't do this alone," said Capt. Jim Estramonte, the Munro's commanding officer. "Through all our adventures, the friends and family members of Munro's crew have supported us. It is their hard work at home that allows us to serve. Their sacrifice does not go unnoticed. So thank you to all those who make our success possible."

Munro is one of four national security cutters homeported in Alameda. These Legend-class cutters are 418 feet long, 54 feet wide and have a 4,600 long-ton displacement. They have a top speed in excess of 28 knots, a range of 12,000 nautical miles, endurance of up to 90 days and can hold a crew of nearly 150.

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# NAVAIR Extends Life of F-16 Adversary Aircraft

An F-16A Fighting Falcon during a maneuver near Naval Air Station Fallon, Nevada. Naval Air Systems Command

PATUXENT RIVER, Md. – The Specialized and Proven Aircraft program office (PMA-226) recently completed a modification on several U.S. Navy F-16A Fighting Falcon aircraft to increase readiness and service life, according to Naval Air Systems Command.

The FalconUp modification improves F-16A readiness by extending their fatigue lives by more than 500 hours and provides the configuration baseline to incorporate the funded Falcon Star program, which adds an additional 3,750 hours to the service lives of the aircraft.

“The FalconUp upgrade incorporates structural improvements that extend the service life of the aircraft from 3,665 hours to 4,250 hours,” said Capt. Ramiro Flores, PMA-226’s program manager. “The program procured and installed proven structural modification kits on 10 U.S. Navy aircraft that enhanced and strengthened their internal structure.”

PMA-226 used a rapid acquisition approach, in this case a build-to-print strategy to minimize risk and eliminate the need for test plans, systems engineering plans and design reviews. Build-to-print is a process in which a manufacturer produces products, equipment or components according to the customer’s exact specifications.

The program office leveraged existing designs that the U.S. Air Force and international partners have used to install the modification and have been including it in production of the F-16 for more than two decades. The Navy competitively awarded the contract to ES3 Prime Logistics Group Inc., which has previously manufactured the same components for the Air Force and PMA-226.

“Since the proven design has flown thousands of hours in this configuration, and it doesn’t require expansion of the current flight envelope, we were able to deliver this training capability to the warfighter much faster than a traditional

program," said Lt. Cmdr. Heather Bliss, PMA-226 adversary program team co-lead.

"The upgrade allows the Navy to provide mission ready adversary aircraft for Naval aviation advanced tactical and aerial combat training, extending the operational life of the F-16A through 2025," said Boyd Forsythe, PMA-226 adversary program team lead.

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# NAVAIR Orders Two MV-22B Osprey

An MV-22B Osprey prepares to land on the flight deck of the aircraft carrier USS Theodore Roosevelt on Feb. 15. U.S. Navy/Mass Communication Specialist 3rd Class Nicholas V. Huynh
ARLINGTON, Va. – Naval Air Systems Command has ordered two MV-22B Osprey tilt-rotor transport aircraft and provided funds to continue the modernization of the Osprey fleet.

According to the Feb. 28 Pentagon contract announcement, NAVAIR awarded Bell-Boeing a $165.3 million contract under the fiscal 2020 defense budget for the two MV-22Bs and for repairs to the existing Osprey fleet under the Common Configuration Readiness and Modernization (CC-RAM) program.

The CC-RAM program is designed to reduce about 70 different sub-configurations of the Osprey fleet to standard configurations. Most of the existing Osprey fleet is the Block B configuration. Bell-Boeing delivered the first of 129 Block B MV-22Bs to be converted to Block C standards to the Marine Corps on Dec. 10.

The Block C incorporates upgrades added as a result of lessons learned in combat deployments of the Osprey. The upgrades include improved cockpit displays, a display in the passenger/cargo cabin, chaff and flare dispensers and a weather radar.

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# 2nd Fleet Conducts Convoy Exercise in Atlantic

A convoy made up of the guided-missile cruiser USS Vella Gulf (foreground), the vehicle carrier MV Resolve (center) and the MSC cargo ship USNS Benavidez steam in formation. U.S. Navy/Mass Communication Specialist 3rd Class Andrew Waters

NORFOLK, Va. – U.S. 2nd Fleet, on behalf of U.S. Naval Forces Europe (NAVEUR) and with Military Sealift Command (MSC), is conducting convoy operations across the Atlantic, employing the guided-missile cruiser USS Vella Gulf alongside USNS Benavidez, MV Resolve and MV Patriot, the 2nd Fleet said in a release.

Sealift remains the primary method for transporting military equipment, supplies and materiel around the world. With the return of peer competition and access to sea lanes no longer guaranteed, the Navy and MSC train together to ensure successful delivery and sustainment of combat power.

“In a real-world conflict, much of the military equipment must still go by sealift, which makes convoy operations a critical skill set to maintain and practice,” said Capt. Hans E. Lynch, commodore of MSC Atlantic. “In the last five years, there has been an increased emphasis on including Merchant Marine shipping in large-scale exercises to enhance tactical

proficiency. Exercises that incorporate convoy operations are an extension of that ongoing tactical training."

This exercise is simulating an opposed transit, testing the fleets' abilities to safely cross the Atlantic and new ways of conducting a convoy in today's environment. Convoy operations were critical during World War I and World War II as the primary method for moving troops and military equipment, supplies and materiel to Europe. After WWII, convoys became less prevalent in the Atlantic theater, although still practiced in other areas of operation.

> *"In a real-world conflict, much of the military equipment must still go by sealift, which makes convoy operations a critical skill set to maintain and practice."*
>
> *Capt. Hans E. Lynch, commodore of MSC Atlantic*

"The Atlantic is a battlespace that cannot be ignored," said Vice Adm. Andrew Lewis, commander of the 2nd Fleet. "We need to be prepared to operate at the high end alongside our allies, partners and adversaries alike as soon as we're underway."

During its operations in the Atlantic, Nimitz-class aircraft carrier USS Dwight D. Eisenhower, along with P-8s from VP-4 and a U.S. submarine, cleared the maritime battlespace prior to the transit of the Vella Gulf-escorted MSC convoy.

"This exercise allows us to sharpen our ability to move critical resources across the Atlantic, from the United States to Europe," said Adm. James G. Foggo III, commander of NAVEUR.

Foggo added: "The transatlantic bridge is just as important today for moving troops and military equipment, supplies and materiel from the United States to Europe as it has been at any point in history."

The 2nd and 6th fleets work together to ensure the security of sea lanes of communication in the Atlantic. If called upon, the Pentagon's sealift transportation fleet expects to move about 90% of required assets from the U.S. to the conflict theater. The safest and quickest way to get needed materials to the front lines is via maritime convoy.

"We, as a Navy, are inherently linked with the broader maritime industry, and this exercise provides a great opportunity to train like we fight," said Capt. Andrew Fitzpatrick, the Vella Gulf's commander. "Practicing convoy operations flexes a blue-water, high-end skill for the first time in many years, enabling us all to operate on, above and below the sea in a contested environment."

MSC operates about 110 noncombatant, civilian-crewed ships that replenish Navy ships, conduct specialized missions, strategically preposition combat cargo at sea around the world and move military cargo and supplies used by deployed U.S. forces and coalition partners.

C2F tests operational authorities over assigned ships, aircraft and landing forces on the East Coast and the Atlantic Ocean. When directed, C2F conducts exercises and operations within the U.S. European Command area of responsibility as an expeditionary fleet.

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# BAE Secures $188 Million Contract for Navy Aegis

# Combat System

MCLEAN, Va. – BAE Systems Inc. was awarded a five-year $188.2 million contract to provide the U.S. Navy's Aegis Technical Representative organization with large-scale system engineering, integration and testing expertise for the Aegis weapons and combat systems aboard Navy surface ships, the company announced.

"BAE Systems personnel have worked side-by-side with Navy Sailors and civilians for nearly 40 years to strengthen and modernize the fleet of Aegis-equipped surface ships," said Mark Keeler, vice president and general manager of BAE's Integrated Defense Solutions business. "Our team brings a wealth of Aegis combat system expertise with the agility, innovation and technical acumen to ensure the U.S. Navy has the safe and effective combat capability it needs to meet mission objectives."

As part of the Aegis Technical Representative Engineering Support Services contract, BAE will provide Navy acquisition managers with on-site leadership and systems engineering to validate Total Ship Combat design at Navy sites in Mount Laurel, New Jersey, Bath, Maine, and Pascagoula, Mississippi.

The company also will support systems engineering and test and evaluation personnel to provide fleet experience and operational insight. Additionally, the company will provide logistics, cybersecurity, production, acquisition and waterfront support required for upgrading and maintaining development of Aegis combat system capabilities and baselines across the entire life cycle.

# Navy to Christen Littoral Combat Ship Cooperstown

Then-Navy Secretary Ray Mabus delivers remarks at the National Baseball Hall of Fame's induction weekend in July 2015, announcing the name of the Freedom-class littoral combat ship LCS 23 as USS Cooperstown. U.S. Navy/Mass Communication Specialist 2nd Class Armando Gonzales

ARLINGTON, Va. – The U.S. Navy will christen its newest Freedom-variant littoral combat ship (LCS), the future USS Cooperstown (LCS 23), during a 10 a.m. CDT ceremony on Feb. 29 in Marinette, Wisconsin, the Pentagon said in a release.

Alba Tull will serve as the ship's sponsor. In a time-honored Navy tradition, she will christen the ship by breaking a bottle of sparkling wine across the bow. Jane Forbes Clark, chairman of the board of directors of the National Baseball Hall of Fame and Museum in Cooperstown, New York, will deliver the ceremony's keynote address.

"The christening of the future USS Cooperstown marks an important step toward this great ship's entry into the fleet," acting Navy Secretary Thomas Modly said. "The dedication and skilled work of everyone involved in the building of this ship has ensured that it will represent the great city of Cooperstown and serve our Navy and Marine Corps team for decades to come."

LCS 23 is the 12th Freedom-variant LCS, the 23rd in the class. The Cooperstown is the first ship named in honor of the city. LCS 23 received its name on July 25, 2015, during a ceremony at the Hall of Fame and it honors the veterans who are members of the Hall of Fame. These 64 men served in conflicts ranging from the Civil War through the Korean War.

LCS is a modular and reconfigurable ship, designed to meet

validated fleet requirements for surface warfare, anti-submarine warfare and mine countermeasures missions in the littoral region. Using an open architecture design, modular weapons, sensor systems and a variety of manned and unmanned vehicles to gain, sustain and exploit littoral maritime supremacy, LCS provides the U.S. joint force access to critical areas in multiple theaters.

The LCS class consists of two variants, the Freedom variant and the Independence variant, designed and built by two industry teams. The Freedom-variant team is led by Lockheed Martin in Marinette (for the odd-numbered hulls). The Independence-variant team is led by Austal USA in Mobile, Alabama, (for LCS 6 and the subsequent even-numbered hulls).

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# Modly: Integrated Navy Force Structure to Steer Away From Large Surface Combatants

Acting Navy Secretary Thomas B. Modly speaks Feb. 28 at the Brookings Institution. Richard R. Burgess

WASHINGTON – The U.S. Navy's forthcoming Integrated Naval Force Structure Assessment (INFSA) differs from the 2016 FSA by some inflection points, including a reduced emphasis on large surface combatants, the Navy's top official said.

Acting Navy Secretary Thomas B. Modly, speaking Feb. 28 at the Brookings Institution, a Washington think tank, noted several inflection points.

"One of the more significant things is de-emphasis on large

surface combatants," Modly said. "You will see that number come down in favor of more small, highly capable surface combatants like the frigate and some of the things that we're thinking about doing with the LCS [littoral combat ship]."

He said another inflection point is unmanned vessels.

"There is a large discussion about how unmanned [vessels] would work," he said. "The numbers of the end-state of that are still in flux, and I'm fully comfortable with that being in flux because, frankly, we don't have any right now. Whether we end up of 45 or something [unmanned vessels] that we don't know or 50 or 75 we don't know, it's sort of irrelevant."

"We know we have to start down the path towards unmanned to understand how that's going to work, and that's both underwater and above water, [including] large, medium, small, etc.," he said.

Modly also said that two new classes of ships are being considered by the Navy. One is a smaller, lighter, more lightly manned amphibious ship that "can provide the distributed maritime operations and the expeditionary advanced base operations that are part of [Marine Commandant David H. Berger's] vision."

The second class is a combat support ship.

"We currently don't have those kind of ships in the fleet right now, nor on the drawing board," he said. "In this [fiscal 2021] budget, we have dollars assigned to start research and development."

Modly noted that there are differences between the Navy Department's analysis and that of the Defense Department's Cost Assessment and Program Evaluation office.

"I don't think they're that significant, when you're talking about a plan that's going to evolve over 10 years, so it's

[Defense Secretary Mark Esper's] prerogative and so we're supporting him in taking a look at that," he said. "The next couple of months we'll probably tighten up some of those differences."

"We've got to invest in a new amphib; we've got to invest in a new combat support [vessel]; we've got to invest in the frigate," Modly said. "We've got to think about how we accelerate the pace in which we're going to acquire the frigate. We've got to think about unmanned."

Modly said the Navy and Marine Corps both assigned three-star flag officers to conduct the INFSA, a study that included campaign analyses.

"It's a good starting point for this future force structure," he said. "What we want to do now is take it out of the realm being something we do every four years. This is how we have to start thinking as a department. So, we are developing a process now to take that statement around and iterate it continually so that it can inform our budget process in more of a real-time manner."

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# Laser From Chinese Destroyer Targets Navy P-8A Poseidon

A P-8A Poseidon maritime patrol aircraft. A Poseidon was targeted by a laser from a Chinese destroyer on Feb. 17, according to the U.S. Pacific Fleet. U.S. Navy/Mass Communication Specialist 1st Class Bryan Niegel

PEARL HARBOR, Hawaii – A U.S. Navy P-8A Poseidon maritime patrol aircraft was lased by People's Republic of China (PRC)

navy destroyer 161 on Feb. 17 while flying in airspace above international waters about 380 miles west of Guam, according to the U.S. Pacific Fleet's public affairs office.

The P-8A was operating in international airspace. The PRC navy destroyer's actions were deemed unsafe and unprofessional.

Additionally, these acts violate the Code for Unplanned Encounters at Sea (CUES), a multilateral agreement reached at the 2014 Western Pacific Naval Symposium to reduce the chance of incidents at sea, according to the U.S. Pacific Fleet.

The CUES agreement specifically addresses the use of lasers that could harm personnel or damage equipment. The destroyer's actions were also inconsistent with a Memorandum of Understanding (MOU) between U.S. Defense Department and the Ministry of National Defense of the PRC regarding rules of behavior for safety of air and maritime encounters.

The laser, which was not visible to the naked eye, was captured by a sensor onboard the P-8A. Weapons-grade lasers could potentially cause serious harm to aircrew and mariners as well as ship and aircraft systems.

The P-8A is assigned to VP-45, based at Jacksonville, Florida, and is forward-deployed to Kadena Air Force Base in Okinawa, Japan. The squadron conducts routine operations, maritime patrol and reconnaissance in the U.S. 7th Fleet area of operations.

Navy aircraft routinely fly in the Philippine Sea and have done so for many years and aircraft and ships will continue to fly, sail and operate anywhere international law allows.

# Navy Accepts Delivery of USS Tripoli

The USS Tripoli transits the Gulf of Mexico during builder's trials last July. Derek Fountain/Huntington Ingalls Industries
PASCAGOULA, Miss. – The U.S. Navy accepted delivery on Feb. 28 of the future USS Tripoli, the newest America-class amphibious assault ship, from Huntington Ingalls Industries' Ingalls Shipbuilding Division, the Navy announced.

Amphibious assault ships project power and maintain presence by serving as the cornerstone of the amphibious ready group or expeditionary strike group. These ships transport elements of a U.S. Marine expeditionary unit or Marine expeditionary brigade with a combination of aircraft and landing craft. Optimized for aviation capability, Tripoli will enhance Marine aviation with an enlarged hangar deck, greater maintenance capability, and JP-5 fuel capacity.

"On behalf of the entire team, I am grateful to take delivery of this versatile warfighting asset," said Tom Rivers, amphibious warfare program manager for Program Executive Office (PEO)-Ships. "The Navy and industry team has worked persistently to deliver this platform, ready to integrate the Marine Corps air combat element, including the Joint Strike Fighter, to our combatant commanders."

USS Tripoli incorporates the fuel-efficient gas turbine propulsion plant, zonal electrical distribution, and electric auxiliary systems first installed on USS Makin Island (LHD 8). LHA 7 will be 844 feet in length, will have a displacement of about 44,971 long tons and can operate at speeds of more than 20 knots.

"Shipbuilding is a team sport, and LHA 7 is no exception,"

said Capt. Nathan Schneider, supervisor of shipbuilding, conversion and repair (SUPSHIP) Gulf Coast at Naval Sea Systems Command.

“LHA 7 represents the culmination of significant work effort by shipbuilders here at Ingalls Shipbuilding in Pascagoula, suppliers around the nation, and government stakeholders both here in Pascagoula as well as Naval Sea Systems Command and the Program Executive Office-Ships in Washington, D.C., along with the warfare centers around the country.”

With Tripoli delivered, the ship will focus on moving crew aboard and preparing for commissioning and sail-away later this year.

HII’s Pascagoula shipyard also is producing Bougainville (LHA 8), the guided missile destroyers Delbert D. Black (DDG 119), Frank E. Peterson (DDG 121), Lenah H. Sutcliffe Higbee (DDG 123) and Jack H. Lucas (DDG 125) and amphibious transport dock ships, Fort Lauderdale (LPD 28) and Richard M. McCool Jr. (LPD 29).