

# AerospaceDaily

## & DEFENSE REPORT

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## LOITERING HERO

**Israel's UVision** has demonstrated an extended-range loitering munition, using a moving vehicle and a human in various scenarios to show the system's ability to track, lock on and precisely strike a target as well as its ability to abort the mission. Launched from a rail or multi-tube canister, the Hero-400EC has a new electric motor that enables high-speed transit and low-speed loitering with lower acoustic and thermal signatures that improve stealth. The deployable cruciform wing design allows for attack from any angle and provides missile-level terminal accuracy against static and moving targets, or targets in confined urban environments, to reduce collateral damage, UVision says.

## SpeedNews Defense & Space

**CHINA** launched two Beidou navigation satellites Jan. 12 aboard Long March 3B rocket from Xichang Satellite Launch Center.

**JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY** has \$933.8m U.S. Missile Defense Agency contract for systems engineering and technical support.

**SPACE SYSTEMS LORAL's** Hispasat 30W-6 satellite arrived at Cape Canaveral on Jan. 16 for anticipated February launch aboard a **SPACEX** Falcon 9.

**FRENCH AIR FORCE** conducted last flight of Harfang UAV Jan. 8 before its withdrawal from active service, to be replaced by MQ-9 Reaper.

**RAYTHEON** has \$641.8m U.S. Missile Defense Agency contract for Ballistic Missile Defense System (BMDS) test-related activities for multiple radar platforms.

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### FUNDING & POLICY

## Airbus CEO Warns About Brexit, Trump, Protectionism

**LONDON—Airbus CEO Tom Enders has warned of the dangers of increasing protectionism that could emerge from Brexit and the presidency of Donald Trump.**

He told an audience of aerospace executives here that any attempt to mitigate the negative effects of Britain's planned exit from the European Union by either the EU or the British government would not be completely successful—particularly for aerospace.

Speaking at the annual dinner of the British ADS aerospace trade organization on Jan. 15, Enders described Brexit as a “dangerous protectionist trend” that would “weaken the industrial links between the EU and the UK and have the effect of reducing the efficiency of operations, add cost and curtail competitiveness.

“The bond between the continent and Britain will weaken. Trust between the two sides will diminish,” he said, adding, “I’m afraid that’s already happening.”

Enders said the Brexit process still lacked clarity and significant questions remain about what he called UK work share and investment for Airbus' future generation of aircraft, but also around the non-tariff barriers and customs agreements relating to the transfer across borders of parts and equipment. He also expressed concerns about the freedom of movement for the company's employees, limits upon which “could impact our operations just as much as tariffs on exports,” he said.

Enders also addressed Airbus' concerns about protectionism in the U.S., claiming that the government there is “no longer fighting for free trade” or “fighting for opening markets,” but was instead looking to close U.S. markets to foreign companies and competitors.

He blasted the actions of Boeing, albeit without naming the U.S. airframer, referring to the company as Airbus' “main competitor,” claiming that it was “ruthlessly surfing” President Donald

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## AIRBUS, from p. 1

Trump's America First wave. Enders used the example of Boeing's ongoing trade dispute with Canada's Bombardier, which has resulted in the U.S. government imposing 219% tariffs on the C Series jets ordered by U.S. airlines.

"This strategy, if it is one, may bring short-term success but will be self-defeating," Enders said, adding that Boeing's actions have been short-sighted. He warned that the dispute could have the effect of threatening

transatlantic supply chains, as well as hurting innovation and employment on both sides.

Perhaps the starkest warning Enders left for last, pointing out that the "wreckage" President Trump will leave behind after four or eight years in the White House would be "easier to repair than Britain leaving the European Union."

—Tony Osborne, [tony.osborne@aviationweek.com](mailto:tony.osborne@aviationweek.com)

## BUSINESS

# Will GE Aviation Leave The Corporate Nest?

**Followers of General Electric and its various aviation business units were jolted back into imagining a more independent future Jan. 16 after GE Chairman and CEO John Flannery said he was reconsidering how to structure the industrial giant.**

In a teleconference and event meant for Wall Street analysts and investors, Flannery revealed he was once again thinking about the company's makeup—a surprise announcement since he had just outlined a major corporate review last November. The new review comes after GE had to unveil a \$6.2 billion after-tax charge in the recently ended fourth quarter of 2017 due to GE Capital's health and life insurance work. "Today, I am more convinced than ever that we have substantial underlying strengths and value that have been suppressed in the current context," said Flannery, who took over in August. "As a result, we are looking aggressively at the best structure or structures for our portfolio to maximize the potential of our businesses, continue to deliver outstanding products and services to our customers, enhance our ability to provide attractive opportunities for

our employees, while maximizing value for our shareholders."

Flannery said the company will report "this spring" on a review of alternatives, but he set expectations that change was coming. "Our results over the past several years, including 2017 in the insurance charge, only further my belief that we need to continue to move with purpose to reshape GE."

GE Aviation was an expected winner in the earlier review by Flannery, with GE leaders deciding to keep the aerospace engine and related work as a core offering even as they look to dispose of \$20 billion worth of assets elsewhere. But even then, questions remained about the fate of GE Capital Aviation Services (Gecas), one of the world's leading commercial aircraft and engine lessors and lenders.

Investor attention has been growing again in GE Capital, a unit many observers turned away from after years of major divestitures. "One cannot rule out that Capital may need an eventual equity infusion from Industrial," Cowen and Co. analysts said. But Cowen said a divorce of GE is still ill-advised based on the belief it would push share prices down further.

"This makes a breakup of GE, which would have been non-economic even before Capital's fourth-quarter charge, even less so now," the analysts said. "We see no quick fix for the stock."

—Michael Bruno, [michael.bruno@aviationweek.com](mailto:michael.bruno@aviationweek.com)

## BUSINESS

# Airbus To Resolve Taiwan Missile Sale Dispute

**LONDON—Airbus says it will work to resolve a long-running dispute between the Taiwanese government and one of the company's subsidiaries, Matra Defense.**

The company announced on Jan. 13 it had been ordered to pay €104 million (\$127 million) to Taipei by an arbitration court. Airbus says the Matra Defense business is "reviewing the award before evaluating the next steps to take following the outcome of this arbitration."

The Airbus case relates to a commercial dispute over the sale of missiles to equip Taiwan's fleet of Dassault Mirage 2000s, which at the time was one of France's largest arms deals. Taipei says Matra breached its contract over the supply of the missiles.

Several other French companies including Thales and Safran also have been fined in Taiwan to settle the 25-year-old case. Airbus says the Matra Defense business was acquired by a French predecessor company that later was merged into EADS, now Airbus.

In the same announcement, Airbus said it was in discussions with public prosecutors in Munich about ending an investigation into the 2003 sale of Eurofighter jets to Austria. The Munich-based investigation has been probing bribery allegations focusing on the movement of money paid by what was then EADS into several Austrian companies.

This investigation is entirely separate from the Vienna-based investigation launched in 2017 that claims that Airbus fraudulently deceived the Austrian government over the sale of the Typhoons. Vienna is claiming damages of €1.1 billion. Airbus has denied the accusations, calling them groundless. However, the aerospace and defense

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**FUNDING & POLICY**

# Trump Wants U.S. Navy Nuclear Cruise Missiles

**The U.S. Navy would be with re-equipped with nuclear-tipped cruise missiles under the Trump administration's new nuclear strategy.**

A leaked draft version of the 2018 U.S. Nuclear Posture Review (NPR) outlines U.S. President Donald Trump's plan for a sweeping nuclear weapons revival, perhaps the largest modernization of America's strategic stockpile since the Reagan era.

Along with sustaining or accelerating just about every major nuclear weapons project established by his predecessor, Trump's revised strategy adds several new projects aimed at countering the increasingly modern and diverse nuclear forces of Russia and China.

If the strategy is adopted, U.S. naval force stands to gain at least two lower-yield nuclear strike capabilities, the first being a sea-launched cruise missile (SLCM) to fill the void left by the Obama administration's retirement of the nuclear-armed Raytheon Tomahawk. The second would be a low-yield warhead for the Ohio-class submarine's Lockheed Martin Trident D5 submarine-launched ballistic missile (SLBM).

"In the near-term, the U.S. will modify a small number of existing SLBM warheads to provide a low-yield option and in the longer term, pursue a modern nuclear-armed SLCM," notes the document, recently published by The Huffington Post. "Unlike dual-capable aircraft, a low-yield SLBM warhead and SLCM will not require or rely on host nation support to provide deterrent effects.

"They will provide additional diversity in platforms, range, and survivability, and a valuable hedge against future nuclear 'break out' scenarios."

The U.S.'s first nuclear policy revision since 2010, the new strategy would essentially halt further reductions in the American stockpile and restore some capabilities lost over successive administrations. For example, the 2010 Nuclear Posture Review eliminated the Navy's Tomahawk Land Attack Cruise Missile-Nuclear (TLAM-N) because "the deterrence and assurance roles of TLAM-N can be adequately substituted by these other means." The Obama administration was content relying on strategic-level nuclear weapons instead: the Air Force's Minuteman III intercontinental ballistic missile and the Navy's Trident D5 SLBM.

The last TLAM-Ns were withdrawn from service around 2012 or 2013. But this unilateral disarmament was not reciprocated by Russia, which in October 2015 began striking targets in Syria from almost 1,000 nm away with a non-nuclear version of its latest sea-launched land attack cruise missile, the 3M-14 Kalibr. Moscow also stands accused of

fielding a ground-launched cruise missile, the Novator 9M729 (SSC-8), in violation of the Russia-U.S. Intermediate-range Nuclear Forces Treaty.

TLAM-N's withdrawal also has limited the Pentagon's nuclear strike options in the Western Pacific, where it faces threats from China and North Korea. Over the past several years, China has introduced a road-mobile ICBM, the Dongfeng-41 (DF-41), as well as a multi-warhead version of the silo-based DF-5. Its DF-26 intermediate-range ballistic missile can now strike land and naval targets throughout the Pacific, including Guam, and Beijing also has announced the development of a midcourse missile defense system akin to America's Boeing-built Ground-Based Interceptor.

Meanwhile, Pyongyang has demonstrated the capability of striking cities across the U.S. with long-range ballistic missiles, including the Hwasong-14 and Hwasong-15 ICBMs. Additionally, its intermediate-range weapons can reach Guam and Hawaii, while also threatening its neighbors, key U.S. allies South Korea and Japan.

"In the 2010 NPR, the U.S. announced the retirement of its previous nuclear-armed SLCM, which for decades had contributed to deterrence and the assurance of allies, particularly in Asia," the draft strategy says. "We will immediately begin efforts to restore this capability by initiating a requirements study leading to an analysis of alternatives for the rapid development of a modern SLCM."

The policy change has been widely condemned by arms control advocates, but private defense consultant and nuclear policy commentator Peter Huessy welcomed the reintroduction of an SLCM as a counterbalance to Russia's nonstrategic tactical nukes.

"The U.S. has a limited theater nuclear capability and the development of a sea-based cruise missile capability would be an excellent addition to the current mix needed to provide extended deterrence to our NATO allies," he tells Aerospace DAILY. "Russia also matches the U.S. and NATO conventionally along the border in Europe and they seek theater nuclear weapons to blackmail or coerce us into standing down in the face of threats and aggression.

"The sea-based cruise missile would be deployed in the maritime regions in Europe, allowing for flexible basing unlike a land-based fixed site of ground-based cruise missiles, for example."

The most likely platform could end up being another Tomahawk. The Navy's current-generation TLAM Block IV is about to be refurbished and upgraded under a midlife recertification program beginning in 2019. Raytheon's new-build Tomahawk production line also is scheduled to go cold around the same time, so any opportunity to build another nuclear-armed version would be welcome work.

—James Drew, [james.drew@aviationweek.com](mailto:james.drew@aviationweek.com)

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giant still is facing a number of corruption investigations. British and French investigators are continuing to probe the commercial airliner business' use of third-party consultants or fixers to secure several international contracts. Meanwhile, the company revealed in October

it was working with the U.S. State Department after uncovering "certain inaccuracies in filings" pertaining to political contributions, fees and commissions of the International Traffic in Arms Regulations.

—Tony Osborne, [tony.osborne@aviationweek.com](mailto:tony.osborne@aviationweek.com)

## FUNDING & POLICY

# Thornberry: Trump's Defense Strategy Will Drive Spending

**An influential Republican congressman expects the Trump administration's National Defense Strategy, slated for release Jan. 19, will provide a blueprint to guide congressional spending decisions as the military faces an increasingly dangerous world.**

The strategy, the administration's first major review of Department of Defense policy, will serve to put Congress "on the spot" to provide adequate funding for the military, Rep. Mac Thornberry (R-Texas), chairman of the House Armed Services Committee, told reporters during a Jan. 16 event in Washington.

"We have been wanting a strategy that then would drive budgets," Thornberry said. "If Congress does not step up and provide the budget required to implement a strategy, then the administration is going to say, 'You made this call, we can't do these things.'"

Thornberry called on Defense Secretary James Mattis to be "very explicit" on the consequences of not meeting the department's funding needs. "There have got to be consequences to failing to adequately

resource our military, otherwise what you are doing is you are just stretching these men and women further," Thornberry said. "The Secretary has got to be very explicit: this is what it takes to fund this strategy. If you don't provide this amount of money we can't do this or we've got to do less."

The National Defense Strategy will be the second in a series of major reviews directed by the Trump administration. On Dec. 18, President Donald Trump unveiled the National Security Strategy. Next up, in February, the Pentagon will unveil a specific Ballistic Missile Defense Review and Nuclear Posture Review. The National Security Strategy covered wide-ranging topics, from border security to North Korea. The forthcoming National Defense Strategy is an opportunity for the Pentagon to get into specifics.

Congress still has not reached a budget agreement to fund the government for fiscal 2018, even as the Trump administration readies its budget request for fiscal 2019. Thornberry hopes the National Defense Strategy will create a sense of urgency for Congress to fund the military. "It makes it real, because otherwise people are going to think we can get by," Thornberry said. "Having a strategy is a really good thing. Among other things, it helps put us on the spot to understand the consequences of our actions.

—Lara Seligman, [lseligman@aviationweek.com](mailto:lseligman@aviationweek.com)

## PROGRAMS

# UK Ending Westland Lynx Operations

**RAF ODIHAM, ENGLAND—Britain is preparing to retire its last operational Westland Lynx helicopters, ending a 40-year career with the Army Air Corps and Royal Navy.**

With the Royal Navy retiring the last of its Lynx Mk. 8 shipborne helicopters last March, the army is now preparing to give up its last eight Mk. 9A model aircraft at the end of January.

On Jan. 16, four of the last eight operational Lynx from the Army's 657 Sqdn. took part in a round-robin trip of Southern England from here to locations pertinent to the aircraft's history, including the Yeovil factory where the aircraft were built.

Britain was the only country to operate both the naval and land-based Lynx. But while the naval Lynx was an export success, selling to 17 nations, the Army Lynx only served with the British Army and a handful had a brief stint with the Qatari Police. The Army Lynx in its various models was deployed extensively by the British Army to the Afghanistan, Bosnia, Iraq and Kosovo theaters.

The Mk. 9A fleet was developed as an urgent operational requirement for the Afghanistan conflict when it was determined that the Rolls-Royce Gem-powered Lynx Mk. 7 was unable to operate safely in the country's hot-and-high environment. As a result, the small fleet of 22 Mk. 9 Lynx, fitted with wheeled landing gear, were converted by AgustaWestland, now Leonardo Helicopters, with Honeywell/Rolls-Royce LHTEC T800 engines, providing additional performance.

Once retrofitted, the aircraft were deployed to Afghanistan for intelligence and reconnaissance missions as well as armed escort and overwatch tasks. Later the aircraft were operated on training detachments in Belize, Central America, where the T800 performance was highly praised.

"The Mk. 9A was the ultimate Lynx, the aircraft we always wanted," Maj. Jim Peycke, commander of 657 Sqdn., told Aerospace DAILY. "The aircraft was multirole in every possible way ... it has been a jack of all trades but master of none."

Peycke said the Mk. 9A model's "nippy" performance was highly regarded among its pilots and provided numerous options for Britain's defense ministry when it came to rapid deployment. Two Lynx could be transported in a C-17 airlifter and then rapidly reassembled for operations.

Once the aircraft have exited service, key components from the Mk.9A fleet will be used to feed the spares and support requirements of its replacement, the Leonardo AW159 Wildcat now in service with both the British Army and Navy. Both the Mk. 9A Lynx and the Wildcat share the same engines, transmissions and automatic flight control systems.

The Wildcat brings with it significantly advanced avionics and sensors, but the new aircraft is heavier than the old Lynx and has a shorter endurance and a smaller cabin.

So far, the Wildcat has had limited success in the export market. Perhaps more worryingly, reports suggest the Wildcat fleet's future is in doubt. Both Army and Navy fleets feature extensively in lists of potential cost-saving cuts reportedly being proposed for the UK armed forces as part of a review of national security needs that is due to report in the coming months.

—Tony Osborne, [tony.osborne@aviationweek.com](mailto:tony.osborne@aviationweek.com)

## STAFF

### EDITORIAL STAFF

2121 K Street, NW, Suite 210, Washington, DC 20037  
awin.aviationweek.com  
Tel: +1-202-517-1100

### EDITORIAL STAFF

**Editor In Chief** Jefferson Morris  
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Fax: +1-844-609-4274  
awin@omeda.com

### INTELLIGENCE AND DATA SERVICES

**Managing Director** Anne McMahon  
Tel: +1-646-291-6353, anne.mcmahon@aviationweek.com

**Senior Director, Business Development** Thom Clayton  
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### ADVERTISING

**Sales Director** Melissa Crum  
Tel: 913-284-2951, melissa.crum@penton.com

### REPRINTS

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[penton@wrightsmedia.com](mailto:penton@wrightsmedia.com)

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## PROGRAMS

# France Plans Progressive C-130J Entry Into Service

**LYON, France—The French Air Force is planning on a gradual entry into service of the four Lockheed Martin C-130J Super Hercules military transports it has begun receiving.**

The four medium-lift aircraft—two of which feature inflight refueling capability—will fill the gap between the light Casa CN235 and the Airbus A400M Atlas, at a time when developmental delays and slow deliveries are impeding the deployment of the latter, and the aging C160 Transall is being phased out.

The French Air Force is committed in several operational theaters, including the Sahel region in Africa. Its resources are strained to the limits. “As major capabilities are required for intratheater mobility and Transalls will be retired by 2023, the C-130 fleet will represent the only medium-lift capacity between the A400M and the CN235,” the French defense ministry says.

France’s first C-130J, delivered in December, was inaugurated Jan. 15 at the Orleans-Bricy air base. The handover of a second aircraft is planned for the second quarter. Two KC-130Js are expected in 2019. Four crews—eight pilots and four loadmasters—and 30 maintenance technicians were trained in 2017.

France has chosen the stretched versions of the transport—the C-130J-30 and the KC-130J-30. The country already had purchased 14 earlier-model C-130Hs between 1987-97.

The C-130J’s payload is 19 metric tons (42,000 lb.), compared with 5 metric tons for the Casa CN235, 15 metric tons for the C-130H and 37 metric tons for the A400M.

This year should see the aircraft qualified for unpaved airstrips. Toward the end of this year the first tactical capabilities should be added, such as parachuting. Qualification for helicopter inflight refueling is planned for 2019. Deemed critical, helicopter refueling guarantees “the mobility of special forces” and combat search-and-rescue missions. The A400M has so far failed to deliver that capability.

Finally, in 2020 full operational capability is expected to be attained with a comprehensive self-protection system and the ability to refuel a Rafale or a Mirage 2000 in flight.

Germany and France are creating a joint air transport unit flying the C-130J. The unit, which will form at Evreux, France, starting in 2021, is the first phase of a strengthened defense partnership.

—Thierry Dubois, [thierry.dubois@aviationweek.com](mailto:thierry.dubois@aviationweek.com)

## SpeedNews Defense & Space (Continued)

**KONGSBERG DEFENSE & AEROSPACE and PATRIA** agreed to jointly work on Missile Competence Center in Finland, Open Tactical Framework core technologies and system architecture software for Finnish missile programs, international opportunities.

**CAE** purchased 45% of shares in **PELESYS** (aviation training systems/courseware).

**NORTHROP GRUMMAN** has \$172.7m U.S. Air Force contract for Battlefield Airborne Communications Node (BACN) payload operation/support for payload equipment/services.

**GENERAL ATOMICS AERONAUTICAL SYSTEMS INC.** has \$11.4m U.S. Air Force contract for MQ-12 Block 5 extended-range kits, beyond-line-of-sight kits and Barrett Asymmetrical Digital Datalink Computer routers.

**AERIAL MACHINE & TOOL CORP.** has \$7.7m U.S. Army contract for small and large modular airborne weapons cases.

## PROGRAMS

# Thrush Considering ‘Optionally Piloted’ Model 510 Firefighter

**Thrush Aircraft is considering development of an “optionally piloted” version of its Model 510 agricultural aircraft for aerial surveillance and fighting fires.**

The Albany, Georgia-based agricultural aircraft manufacturer has teamed with Drone America of Reno, Nevada, to potentially develop the 510 into “the world’s first autonomous air tanker.”

A spokesman for Thrush says it is still “very early days” and no decisions have been made about the final design. But the partnership, announced on Jan. 12, initially will focus on unmanning the civil-certified 510. Thrush has already adapted the 510 for aerial firefighting, the 510G “Switchback,” which was recently purchased by Georgia’s Forestry Commission.

Powered by a single 800-shp General Electric H80, the aircraft measures 34 ft. long with a wingspan of almost 48 ft. The aircraft can carry approximately 510 gal. of liquid for spraying, and can quickly “switch back” between firefighting and cropdusting. By incorporating Drone America’s UAV technology and adding more waterdrop capacity, Thrush hopes to produce an optionally piloted aircraft that can douse flames with 800 gal. of water or fire retardant during the day or night.

One of the main reasons for flying autonomously is to remove the pilot for riskier operations. In the U.S., aerial firefighting typically ends at sundown due to crew safety concerns, but that is usually the optimal time to tackle fires.

“Currently, only manned air tankers are used in airborne firefighting operations, and they are restricted from fighting fires during night-time hours,” the companies explain in a joint press statement.

“However, it is during this ‘dark window’ that autonomous tankers can take special advantage of the cooler temperatures and reduced fire activity to support tactical ground operations, without risking the lives of pilots.”

Drone America is the company behind the Ariel UAV, a tandem-prop amphibian UAV prototype that has also been proposed for aerial firefighting and surveillance. The company already has proposed an Ariel Scooper Drone for waterbombing operations, but a UAV version of the 510 might be certified quicker. “We founded our company on the belief that highly reliable, well-integrated autonomous systems can significantly improve public and environmental safety,” Drone America President and CEO Mike Richards says. “Our collaboration with Thrush represents a major step forward in achieving that goal.”

“[We’re] applying our design, manufacturing and flight test capabilities to a whole new generation of autonomous aircraft that can do things manned aircraft simply can’t do safely, or as efficiently,” adds Thrush President and CEO Payne Hughes.

The companies did not reveal any schedule or target dates, since there are still many details to be worked out. Thrush also has partnered with Iomax to develop a bomb-dropping version of the company’s 710 for military customers, but creating an optionally piloted version is a whole different challenge.

Even if the team is successful, an autonomous aircraft would need to be certified by the FAA to legally fly in the U.S. National Airspace System. Aurora Flight Sciences is an industry leader in this field, having converted several Bell UH-1 Hueys for operationally piloted military and commercial operations. Apart from firefighting, the Thrush-Drone America team also is considering ways that an optionally piloted 510 could support other missions, such as humanitarian and disaster relief operations, hauling cargo, and maritime patrol.

—James Drew, [james.drew@aviationweek.com](mailto:james.drew@aviationweek.com)

## OPERATIONS

# SpaceX ISS Cargo Mission Splashes Down

**HOUSTON—SpaceX’s 13th NASA-contracted Dragon resupply mission to the International Space Station (ISS) splashed down under parachute in the Pacific Ocean off the coast of Baja, California on Jan. 13 with a 4,100-lb. return cargo of science experiments and technology demonstrations.**

SpaceX shipborne recovery forces reported contact with the water at 10:40 a.m. EST, nearly six hours after the capsule departed the ISS.

Recovery ships will head for port in Long Beach, California, to off-load time-critical experiments, among them a rodent investigation assessing the use of the drug formoterol as a possible countermeasure

to the loss of astronaut muscle tissue in the absence of gravity.

The return cargo included results from a Made In Space, Inc., effort to demonstrate the in-space production of a high-quality ZBLAN fiberoptic cable that might support a business case for future manufacture of the material in space for terrestrial markets.

SpaceX CRS-13 rendezvoused with the ISS Dec. 17, two days after launching atop a Falcon 9 rocket from Cape Canaveral Air Force Station, Florida.

The previously flown Dragon capsule’s 4800-lb. delivery included the Total and Spectral Solar Irradiance Sensor and Space Debris Sensor. The two sensors, the first to monitor solar energy levels reaching the top of the Earth’s atmosphere with new sensitivity and the second to characterize the 1-1.5 mm metal fragment orbital debris environment in the station’s 250-mi.-high orbit, were installed outside the ISS using the station’s robot arm on Dec. 30-31.

—Mark Carreau, [mark.carreau@gmail.com](mailto:mark.carreau@gmail.com)

## PROGRAMS

## France Awards Naval UAV Study To Naval Group, Airbus

**LYON, France—French procurement agency DGA has awarded Naval Group (formerly DCNS) and Airbus Helicopters a contract to build an unmanned tactical helicopter demonstrator to be tested aboard a French Navy warship in mid-2021.**

France's SDAM (Navy Airborne Drone System) has its entry into service penciled in for the middle of the next decade on new intermediate-sized frigates. DGA has assigned Airbus and Naval Group "de-risking studies" leading to the demonstration "of a complete system in a representative environment."

The two companies will thus carry on Airbus Helicopters' work on the unmanned VSR700, based on Helicopteres Guimbal's Cabri G2.

Airbus Helicopters last spring started autonomous flight trials of an optionally piloted Cabri G2. It includes VSR700 systems such as digital flight controls and a diesel engine. The modified Cabri is to pave the way for the first flight of the actual VSR700 prototype this year.

In parallel, sea trials of a manned Cabri G2 took place with the support of a French Navy air defense frigate. The goal was to assess the flight envelope of the VSR700 platform for shipborne operations. A challenge for the VSR700 will be automated deck landings in rough seas, but Airbus Helicopters is confident in its know-how in automated flight control.

The 700-kg (1,500-lb.) VSR700 will feature 10 hr. of endurance with a 150-kg payload. It is thus expected to offer performance levels in reconnaissance that have, until now, been reserved for aircraft of a significantly higher category and size. The VSR700's compact size is compatible with the simultaneous use of an on-board helicopter, Airbus says.

Naval Group and Airbus Helicopters will act as the program design authority, with Helicopteres Guimbal, Thales, Safran and Onera as their main subcontractors, DGA notes. "This study also allows us to structure a world-leading industrial sector in this field," says Herve Guillou, Naval Group's president and CEO.

Since 2012, the French Navy has been extensively testing a lighter UAV, the Schiebel Camcopter S-100, on several of its vessels. It hopes to use it in operations and sees it as a step towards the larger SDAM.

—Thierry Dubois, [thierry.dubois@aviationweek.com](mailto:thierry.dubois@aviationweek.com)

## FUNDING &amp; POLICY

## Washington Budget Paralysis Kills Dobbins Air Show

**Budget paralysis in Washington has claimed perhaps its first victim of 2018, the Wings Over Atlanta Air and Space Exposition.**

The event had been scheduled for March 24-25 at Dobbins Air Reserve Base in Georgia, which is home to the 94th Airlift Wing, a reserve unit that flies Lockheed Martin C-130H3s. But on Jan. 7 it was announced that the event has been canceled because of "fiscal constraints."

A base spokeswoman confirmed on Jan. 11 that the air show will not proceed because of funding instability over the past few years that has made it difficult to book performers and pay for major expenses like off-base parking. She says the high operational tempo of the reserve unit was also a contributing factor, but the primary reason was fiscal constraints caused by budget paralysis in Washington.

It typically takes about two years to put together an event of this magnitude, and those scheduled at the beginning of the annual budget cycle have a less stable funding window for putting businesses on contract than those planned for around August or September.

Those planned around January, February or March are especially susceptible to the whims of Congress, which has not passed a budget on time since fiscal 2009 and did not come to an agreement for fiscal 2017 until May of that year.

The 94th AW's eight C-130H3s have been extremely busy this past year, completing an overseas operations and maintenance deployment

to Al Udeid Air Base in Qatar, and providing humanitarian relief to states impacted by hurricanes Irma and Harvey in support of the Federal Emergency Management Agency.

Funding instability and the high operational tempo has limited their ability to marshal resources for the air show in March. Many air bases in the U.S. host one air show for the local community every two years, but Dobbins has not put on a show since 2010. "We were really looking forward to it," the base spokeswoman told Aviation Week.

In the Jan. 7 statement, 94th AW commander Brig. Gen. Richard Kemble said the unit "truly regrets" having to cancel the event. "The steadfast support we receive from our community is one of our greatest assets and we look forward to the opportunity to bring a premier air show back to Dobbins in the coming years."

The next opportunity would be 2020, but "nothing's official yet," the spokeswoman says.

The U.S. Air Force Thunderbirds were scheduled to headline at Dobbins. The base's last expo drew more than 300,000 visitors.

The next fiscal showdown between Democrats and Republicans is Jan. 19, by which time they need to come to a budget agreement for fiscal 2018 or pass another continuing resolution.

A continuing resolution would cap defense spending at last year's level, but a full government shutdown would be worse. Squabbling over the fiscal 2014 budget led to a temporary government shutdown in 2013.

These spending gimmicks can negatively impact day-to-day operations and also hamper new arms programs, or those trying to ramp up into full-scale development or increase production rates. Lawmakers typically grant exemptions to the most important national security programs.

—James Drew, [james.drew@aviationweek.com](mailto:james.drew@aviationweek.com)

## CONTRACTS .....

### Selected U.S. Military Contracts For The Week Of Jan. 8-Jan. 12, 2018

Jan. 8, 2018

#### U.S. NAVY

**Lord Co.**, Erie, Pennsylvania, is being awarded a \$27,067,123 five-year firm-fixed-price, long-term contract for repair of three items used on the V-22 aircraft. Naval Supply Systems Command Weapon Systems Support, Philadelphia, is the contracting activity (N00383-18-D-NC01).

Jan. 9, 2018

#### U.S. AIR FORCE

**BAE Systems Information and Electronic Systems Integration Inc.** Electronic Systems, Wayne, New Jersey (FA8726-18-D-0004); The Boeing Co. through PhantomWorks, Huntington Beach, California (FA8726-18-D-0006); Booz Allen Hamilton, McLean, Virginia (FA8726-18-D-0008); Cubic Defense Applications Inc., San Diego, (FA8726-18-D-0012); L-3 Technologies Inc. Communications Systems, West, Salt Lake City, (FA8726-18-D-0010); Lockheed Martin Corp., Rotary and Mission Systems, King of Prussia, Pennsylvania (FA8726-18-D-0007); Northrop Grumman Systems Corp., Airborne C4ISR Systems Div., Herndon, Virginia (FA8726-18-D-0005); Raytheon Space and Airborne Systems, Marlborough, Massachusetts (FA8726-18-D-0009); and Rockwell Collins, Cedar Rapids, Iowa (FA8726-18-D-0011), have been awarded a \$496,000,000 indefinite-delivery/indefinite-quantity, multiple award contract to support tactical platforms and time-sensitive applications for the DataLinks Enterprise community. More specifically, the nine contractors will provide flexibility to accommodate command and control data and myriad types of signals intelligence, geospatial intelligence and full-motion video data and information capture. Air Force Life Cycle Management Center, Hanscom AFB, Massachusetts, is the contracting activity.

#### U.S. NAVY

**The Boeing Co.**, Seattle, is being awarded \$115,244,897 for modification P00097 to a previously awarded fixed-price-incentive-firm target, firm-fixed-price, cost-plus- fixed-fee contract (N00019-14-C-0062) for integrated logistics services and site activation support of P-8A aircraft for the U.S. Navy and the government of Australia. The Naval Air Systems Command, Patuxent River, Maryland, is the contracting activity.

Jan. 10, 2018

#### U.S. NAVY

**Rockwell Collins Simulation and Training Solutions**, Cedar Rapids, Iowa, is being awarded \$21,464,672 for modification

P00002 to a previously awarded firm-fixed-price contract (N61340-17-C-0014) to exercise options for the E-2D Hawkeye integrated training systems (HITS)-III effort for maintenance and flight trainer aircraft concurrency, technology refresh, aircraft obsolescence, and associated technical data. The Naval Air Warfare Center Training Systems Division, Orlando, Florida, is the contracting activity.

Jan. 11, 2018

#### U.S. ARMY

**Sikorsky**, a Lockheed Martin Co., Stratford, Connecticut, was awarded a \$193,850,000 firm-fixed-price foreign military sales (Saudi Arabia) contract for eight Saudi Arabian National Guard and nine Royal Saudi Land Forces Airborne Special Security Forces unique UH-60M aircraft. U.S. Army Contracting Command, Redstone Arsenal, Alabama, is the contracting activity (W58RGZ-18-C-0017).

Jan. 12, 2018

#### U.S. MISSILE DEFENSE AGENCY

**The Johns Hopkins University Applied Physics Laboratory**, a university affiliated research center, Laurel, Maryland, is being awarded a \$933,798,332 noncompetitive, cost-plus-fixed-fee contract. Under this contract, the contractor will provide systems engineering and technical support to the Missile Defense Agency (MDA). MDA's mission is to develop and field an integrated, layered, ballistic missile defense system to defend the U.S., its deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight. To meet its mission, MDA requires research, engineering, science and technology, analysis, test and fundamental technology research for state-of-the-art systems, operations, hardware and software, and associated technology creation and transition efforts. The Missile Defense Agency, Redstone Arsenal, Alabama, is the contracting activity (HQ0147-18-D-0004).

#### U.S. DEFENSE MICROELECTRONICS ACTIVITY

**RF Integration**, Billerica, Massachusetts (HQ0727-18-D-SB01); Alpha Research & Technology, Desert Microelectronics Associates, and MicroNet Solutions Inc JV, El Dorado Hills, California (HQ0727-18-D-SB02); and Teledevices, Duluth, Georgia (HQ0727-18-D-SB03), are each being awarded an indefinite-delivery/indefinite-quantity (IDIQ), multiple award engineering services contract for the Advanced Technology Support Program IV (ATSP4) small business (SB). The ATSP4 SB program is designed to resolve problems with obsolete, unreliable, unmaintainable, underperforming, or incapable electronics hardware and software through development of advanced technology insertions and applications to meet the requirements of the Department of Defense for a quick reaction capability. The Defense Microelectronics Activity, McClellan, California, is the contracting activity.