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Orbital ATK's Antares Rocket Launches Cygnus Spacecraft To ISS.

USA Today (10/17) reports that an Orbital ATK Antares rocket launched from Wallops Flight Facility in Wallops Island, Virginia, carrying a Cygnus spacecraft with "more than 5,000 pounds of supplies and scientific gear" for the International Space Station (ISS). In 2014 an Orbital Antares exploded just seconds after takeoff at Wallops. This flight inaugurated the refurbished Pad-0A, which received $15 million in repairs and upgrades following the explosion. It also was "the debut of Orbital's more powerful, Russian-made RD-181 engines." The Wall Street Journal (10/17, Subscription Publication) reports that NASA and the industry looked to the launch as a sign of whether Orbital ATK could recover from its previous failure. Good work and congratulations to all!

NASA To Test Air Traffic Control System For UAVs, Manned Aircraft.

The Las Vegas Review-Journal (10/17) reports that a NASA team will, for a week, conduct tests at Reno-Stead Airport on "an air traffic control system it is developing for both drones and manned aircraft." NASA Ames Research Center Senior Technologist for Air Transportation Systems Parimal Kopardekar, "principal investigator for the agency's unmanned aerial systems traffic management program, said the system will be put to the test with multiple beyond visual line of sight operations at the same time." Tom Wilzcek, aerospace and defense specialist with Arizona Governor Brian Sandoval's office, said, "We hope to leverage the fact that this is where this was tested to this is where we want the commercial applications to be used."

USPS Plans To Move Forward "Cautiously" With UAV Delivery Service.

Federal Computer Week (10/17) reports that from a nationwide survey on UAVs, the US Postal Service (USPS) learned that the public has an "ambiguous" opinion on UAV deliveries. As a result, USPS explained that "the public's rapidly evolving perception" of UAV delivery services will be an important aspect of its strategy in developing this technology. The USPS report added, "Though it will still take a few years for the technology to mature and the regulatory framework to emerge, proactively examining the concept could allow the Postal Service to better assess its operational feasibility, fundamental economics, regulatory compliance, and social implications."

Companies Experiment With Various Ways Of Using UAVs.

CIO Dive (10/17) reports that AT&T is using UAVs to inspect cell towers and plans eventually to use UAVs equipped with artificial intelligence to independently analyze problems. The article suggests that UAV use likely will expand in the near future with companies such as UPS, Amazon, and Walmart "all experimenting with how they might use drones to track warehouse inventory or conduct other activities."

Connecticut Insurer Using UAVs To Assess Hurricane Claims.

The Hartford (CT) Business Journal (10/17) reports that Hartford-based Travelers Cos. Inc. "is deploying a team of claim professionals who will use...small unmanned aircraft systems to assess properties in South Carolina, Georgia and other states affected by" Hurricane Matthew. The Hartford Business Journal adds that the insurer's "drone operators have been trained to meet the Federal Aviation Administration's regulations and have been fully certified by the FAA to operate the drones."

ARES Profiled.

Breaking Defense (10/17) reports on the Aerial Reconfigurable Embedded System (ARES), a new vertical takeoff and landing (VTOL) aircraft that "is being built by prime contractor Lockheed Martin's famed Skunk Works with Piasecki Aircraft of Essington, Penn., under a $77 million DARPA contract." The "hardware is a 41-foot span, unmanned flying

wing in a tiltrotor configuration" with a fuselage able to carry various plug-and-play payload modules. It is scheduled for its maiden flight next fall at the earliest.

UAS Conference Held In New Jersey.

The Delaware Business Tiimes (10/17) reports, "Nearly 200 people attended the 2nd Annual Cape May NJ UAS Conference," which "is a product of the growing collaboration between industry, academic and government partners in New Jersey to promote UAS innovation and integration at Cape May County Airport (KWWD)." The two-day event "included a drone race expo on the beach, a presentation on drone cinematography, and a Behind the Scenes Look at the Hughes Tech Center."

Rana Fayez wrote in a blog on Technical.ly Delaware (10/17) that the conference covers topics such as "personal rights to privacy, drone best practices, safety, regulations and technology adoption and linking drone startups to end users," but called "most important...the panel on how the drone industry can be seen as an economic driver." The event was held in New Jersey "because it's one of the few Federal Aviation Administration–regulated test sites on the East Coast."

GDU Unveils Advanced Byrd Folding and Modular Consumer Drone

Published: 14 Oct 2016

GDU, a consumer drone manufacturer, has announced the launch of the Advanced Byrd, an upgrade to the company's drone that folds up small enough to fit into a backpack. The Advanced model incorporates additional features and functionality, including a modular and fully integrated GoPro camera gimbal. The Advanced Byrd provides 29 minutes of flight time, with a guaranteed 1000-meter video downlink system included in the shipped model. A more advanced OFDM system is also available. The Advanced Byrd features:

- Interchangeable gimbal/camera configurations
- 'Follow Me' technology
- OFDM HD 1000m video downlink system
- Optical and ultrasonic flight assistance (for inside flights)
- 29-minute flight time
- Included 3-axis gimbal integrated for GoPro cameras
- Route planning
- Intelligent orientation control
- Smart 'return-to-home' feature

http://www.unmannedsystemstechnology.com/2016/10/gdu-launches-advanced-byrd-folding-and-modular-consumer-drone/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=97a6c98d16-Unmanned_Systems_Technology_eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-97a6c98d16-111778317

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Amazon Patents Pocket-Sized, Voice-Controlled UAV.

GeekWire (10/18) reports that Amazon has successfully patented a compact, lightweight, voice-controlled UAV that Re/code (10/18) reports will be "small enough to fit in your pocket." According to Re/code's report, Amazon expects to deploy the technology for a variety of end users, including police departments, which might find it a more suitable option than dashboard-mounted cameras. The UAVs also will be targeted toward ordinary consumers. Re/code suggests that the range of personal uses include helping people "find lost things by searching for an RFID tag or even locating lost children by using facial recognition software." In Gizmodo's (10/19) coverage of the patent, their report incorporates actual language describing other ways in which users can employ the technology, explaining: "If a user is waiting in a long line to buy concert tickets, for example, the user may not be able to see over the crowd to see how many total people are in line," reads the patent. "In this case, the user can simply say 'hover' to the UAV and the UAV can take up a position at a predetermined distance above the user (e.g., 15 feet)."

USPS Study: Amazon Most-Trusted Company For UAV Deliveries.

ConsumerAffairs (10/14) reported that a new study conducted by the Inspector General at the US Postal Service suggests that "Americans like the idea of one-hour delivery but are concerned about the stability and safety of autonomous deliveries." Amazon was found to be "the most trusted brand for making drone deliveries," the study showed, "while Google was ranked as the least trusted," with UPS, FedEx, and the US Postal Service coming in second, third, and fourth, respectively. The story further pointed out that current FAA regulations mean UAV deliveries are "still theoretical" until the line-of-sight rule is phased out.

US Army Seeks To Blend Arrow UAS, Persistent Surveillance Systems Capabilities.

IHS Jane's 360 (10/18) reports that the US Army intends to award to North Eastern Aeronautical Company a $49.2 million sole-source contract "to modernise and merge the capabilities of the company's Arrow unmanned aircraft system (UAS) with the service's lighter-than-air (LTA) Persistent Surveillance System (PSS)," in an effort to improve "tactical situational awareness, intelligence gathering, targeting and tracking, and pre- and post-blast and disaster management."

Rwanda's UAS Medical Supply Delivery Service Launches
By AUVSI News posted 2 days ago

In an effort to reach different parts of the country in a quicker and more efficient manner, the Rwandan government, in partnership with Zipline Inc., has launched what is believed to be the world's first commercial UAS delivery service. Medical supplies including blood, plasma and coagulants will be delivered to remote parts of the country using fixed-winged, unmanned aircraft.

As a part of the partnership between the Rwandan government and Zipline, UAS will fly to pre-programmed locations using GPS navigation, and deliver supplies by releasing a parachute with the supplies attached. Supplies are requested via SMS or phone call from a medical professional, and once the UAS is two minutes away from its destination, that professional is alerted to go outside to collect the materials. Once the deliveries are made, the UAS returns to its launch site. If things go as expected with the beginning of this initiative, officials hope to eventually deliver 150 medical supplies per day to 21 health facilities throughout the country. It is possible that down the line, medical supplies to treat deadly diseases such as HIV/AIDS, malaria and tuberculosis might be delivered using the systems.

http://www.auvsi.org/blogs/auvsi-news/2016/10/17/rwandas-uas-medical-supply-delivery-service-launches

Verizon Uses UAS to Monitor Cell Sites in Carolinas After Hurricane Matthew By AUVSI News posted 2 days ago

Verizon used a quadcopter UAS to monitor the status of cell sites in North Carolina and South Carolina after Hurricane Matthew hit both states. The quadcopter, which was operated by Measure UAS Inc., was able to provide updates on cell sites, and gave Verizon the opportunity to send members of its Network team out to refuel a generator that went down near Elm City, North Carolina.

This wasn't the first time that Verizon has enlisted UAS to help monitor sites. Earlier this year, it used an unmanned system to conduct trial inspections of cell sites in New Jersey. Last week, Verizon conducted the first trial of its Airborne LTE Operations during an emergency management and disaster recovery exercise in Cape May, New Jersey. Video footage from the inspection can be seen here:

http://www.auvsi.org/blogs/auvsi-news/2016/10/17/verizon-uses-uas-to-monitor-cell-sites-in-carolinas-after-hurricane-matthew

NASA to Conduct First Beyond Visual Line of Sight Flights Using UAS

By AUVSI News posted 5 days ago

Next week in Nevada, NASA will conduct their first test of multiple beyond visual line-of-sight flights using UAS. According to a NASA press release, five UAS will fly beyond the visual line of sight of their operators in an effort to gather information to improve upon NASA's UAS traffic management (UTM) research platform. During the test, the planning, tracking and alerting capabilities of the UTM's Technical Capability Level 2 (TCL2) will be put on display in an effort to collect several types of data.

By connecting the platform to drone tracking systems, alerts about other UAS and manned aircraft in the area will be provided, as well as information on the weather, and potential threats or hazards in the airspace. NASA, in partnership with the Federal Aviation Administration, will take all obtained information and use it to improve the UTM's technology and effectiveness. The landmark demonstration will break several barriers for NASA, including the first demonstration of system detect-and-alert capabilities, the first demonstration of automated alert when aircraft are not following their scheduled flight plans, and the first demonstration of dynamic re-routing capability that allows an airborne UAS to request changes for their flight plan.

http://www.auvsi.org/blogs/auvsi-news/2016/10/14/nasa-to-conduct-first-visual-line-of-sight-flights-using-uas

Virginia small satellite initiative investment could return millions

The Virginia Tech Office of Economic Development News Brief October 2016

Virginia could better position itself in the $203 billion global satellite industry with a proposed initiative that may bring in up to $16.2 million and potentially much greater returns to the state, a Virginia Tech study found. The Small Satellites (Small Sat) Virginia Initiative, proposed by the Virginia Space Grant Consortium, aims to push Virginia to the forefront of small satellite technology by investing $4 million annually for three years into university student centered, small satellite research and development activities to support the statewide industry.

The initiative has attracted 31 partners like NASA Langley, NASA Wallops, the Virginia Commercial Space Flight Authority, Virginia Tech's College of Engineering, 20 Virginia-based companies and more—all of whom signed letters of support for the initiative.

The initiative was proposed to the Virginia Joint Commission on Technology and Science's Nanosatellites Technology Advisory Committee in 2015. The committee unanimously endorsed the proposal and Commonwealth seed funding is being requested. A kick-off meeting with all participants is planned for fall 2016. For more information about the Virginia Space Grant Consortium and the initiative, please contact Mary Sandy at msandy@odu.edu or 757-766-5210. To learn more about the Office of Economic Development's study, please contact Scott Tate at atate1@vt.edu.

http://us1.campaign-archive1.com/?u=c84e34700c84641480c53fb1f&id=e7bdbdab39&e=fa88484821

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UAV Traffic Management System Undergoes Second Stage Of Testing Wednesday.

USA Today (10/19) reports that NASA, the University of Nevada, and Reno's NUANCE Lab partnered to hold the second stage of testing Wednesday at the Reno-Stead Airport "for an air traffic management system designed to coordinate multiple drones flown by different operators." USA Today adds that "Nevada is one of six official sites designated by the Federal Aviation Administration for testing unmanned aerial systems."

AUVSI CEO: FAA Rules To Impact Agricultural UAV Use.

IEEE Spectrum (10/19) reports on the growing use of UAVs for agriculture, and notes that the new FAA rules on UAVs are a "win for farmers." According to AUVSI CEO Brian Wynne, more than half of FAA exemptions approved have been for agricultural use of UAVs. Wynne said the FAA's estimate of 600,000 UAVs in use within a year "foreshadow[s] the exciting potential that UAS have for the agriculture industry now that the small UAS rule is in place."

Orbital ATK looks deeper into space following successful launch

Oct 19, 2016, 2:45pm EDT James Bach Staff Reporter Washington Business Journal

Dulles-based Orbital ATK Inc. (NYSE: OA) is no doubt celebrating — and breathing a sigh of relief — following its first successful launch of its Antares rocket since that same brand of rocket exploded seconds after takeoff two years ago. But Orbital ATK isn't viewing this as moment of redemption, but rather as an opportunity to position its signature space vehicles for future deep-space missions.

As Orbital ATK spokesman Barron Beneski told me Tuesday, following these commercial cargo launches "could be follow-on business to support NASA's next step into deeper space human exploration." What Beneski is more specifically referring to are Orbital ATK's efforts to sell NASA on its cislunar space habitats. These space habitats would essentially be modified Cygnus vehicles that go beyond its current mission of delivering cargo in low-earth orbit — about 250 miles out — to the International Space Station, all the way out into cislunar space — the region comprising the moon's orbit.

http://www.bizjournals.com/washington/news/2016/10/19/orbital-atk-looks-deeper-into-space-following.html

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Airblock Educational UAV Exceeds Kickstarter Goal Within 24 Hours.

PC Magazine (10/20) reports that Makeblock's Airblock educational UAV "launched on Kickstarter Wednesday and has already surpassed its $100,000 funding goal." The Airblock comprises "magnetic, modular parts [that] are easy to assemble and disassemble without any tools," is able to transform from a UAV to a hovercraft capable of gliding "over water or solid ground," and is controlled via a smartphone app. Makeblock's Kickstarter page reads, "We're passionate about robotics and STEM; our dream is to let everyone experience that sense of accomplishment that comes from creating something out of nothing."

Pre-Ordered DJI Mavic Pro UAVs Delayed.

Gizmodo (10/20) reports that shipments of DJI's new Mavic Pro UAV have been delayed, and that customers who paid "a minimum of $1000" to pre-order the Mavic Pro have yet to receive them. The Mavic Pros, "tiny, foldable, super smart" UAVs, were due to be shipped out on October 15, but "amazingly strong demand" for the UAV has outstripped supply, according to DJI, which is "fulfilling orders as fast as we can."

UAV Startups See Funding Dry Up.

MarketWatch (10/20) reports that funding for startups developing UAV technology is falling, with a KPMG report finding that financing fell 59 percent year-over-year in the third quarter. "In 2015, everyone was super-hyped about drones," said venture investor Alex Niehenke. "We're now starting to see the leaders emerge." Investor confidence is rising in established companies as they improve quality and operate in a better-regulated and more certain space.

Airbus Releases Flying Taxi Conceptual Renderings.

CNN Money (10/20) reports that Airbus has released the "first conceptual renderings" of its planned Vahana air taxi that "can take off and land vertically," using "two sets of tilting wings with four electric motors." Vahana, which is being developed through Airbus' A3 unit, "doesn't need a runway, is self-piloted, and can automatically detect and avoid obstacles and other aircraft," according to A3 CEO Rodin Lyasoff. "Designed to carry a single passenger or cargo, we're aiming to make it the first certified passenger aircraft without a pilot," Lyasoff said.

Australian Company Looks To Make UAVs As Common As Delivery Trucks.

Oil Price (10/20) reports that Australian UAV delivery company Flirtey is the first company to get approval from the FAA for delivery service. The article notes that "Google and Amazon are still in earlier phases of their drone testing and won't be making deliveries nearly as soon, especially in the United States." The development of UAV deliveries is a concern for traditional shipping companies. The article explains, "Successfully creating a new logistics system would render UPS and FedEx useless." The article adds that Flirtey hopes that its UAVs can become "as common as delivery trucks within the next several years."