UAS and SmallSat Weekly News

Contents

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24Aug19

Prepared photographer with DJI Mavic 2 Pro shoots amazing drone photo of NFL Stadium
Haye Kesteloo Aug. 21st 2019

A prepared photographer, Vic Moss with his DJI Mavic 2 Pro shot this amazing drone photo of an NFL Stadium, and here is his story of how it all went down legally!

While I was flying, Todd and I noticed that the guy in the golf cart and the NFL security guy stayed around and were on the phone. Apparently, the FBI got involved at that point. Just as I was about done, a black SUV pulls up. And out pops the FBI. That's when things got interesting.

Introductions were made, and the FBI agent started to explain things to me. When it was obvious I knew the rules, and was being safe, his demeanor changed for the better. I was the first drone operator they've contacted during Broncos games that was educated in the rules and was flying legally and safely.

The agent, head of security, and I spent 15 minutes talking about the regulations, Aeroscope and new regs coming down the pipe. They also brought up if there was more enforcement, their jobs would be easier. This is an FBI Agent and the NFL Head of Security bringing up the lack of enforcement by the DOJ and DOTOIG. And they want to see more.

I now have contact info for the local head of NFL security and the FBI. And the NFL security said to let him know if I want to fly again for the next home preseason game. He'll pass it down the ranks to let everyone know it's just me.

And, I asked them to pass along my contact info to the people they come across who don't know the rules. After all, it's up to all of us to help educate the new drone owners. It's in our best interest to do that (nicely). They loved that idea. https://dronedj.com/2019/08/21/dji-mavic-2-pro-drone-photo-nfl-stadium/#more-18579

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Looking to work in the drone industry? Check with Skydio Haye Kesteloo Aug. 22nd 2019

Are you looking to work in the drone industry, but maybe not as a commercial drone pilot? Skydio launched the autonomous Skydio R1 drone in early 2018. The California-based drone maker is about to launch Skydio 2, and they could use some extra hands. They have at least eleven open positions.

The company is looking for an Autonomy Engineer, a Deep Learning Research Engineer, Planning/Controls Engineer, and a Computer Vision Research Engineer. They are also looking for hardware technicians and engineers, iOS interface developers, drone assembly technicians, software engineers, and flight testers.

Skydio is seeking a part-time Flight Tester (~20 hrs/week, flexible schedule) to help ensure that the units we're shipping to customers are of the highest quality. This role requires a rigorous approach to field testing complex systems and their capabilities across a wide spectrum of environmental and operating conditions. https://dronedj.com/2019/08/22/work-in-the-drone-industry-skydio/#more-18587

Drone U Flight Mastery graduates get lower drone insurance rates from SkyWatch Haye Kesteloo Aug. 22nd 2019

Drone U Flight Mastery graduates receive lower drone insurance rates from SkyWatch.AI. If you graduate from the Drone U Flight Mastery training course you will receive a 15% discount on any SkyWatch.AI insurance policy. If you increase your safety score through the SkyWatch app, you can increase your discount even further.

SkyWatch.AI Drone Insurance and InsurTech announced today its partnership with Drone U, one of the largest US professional drone training communities. Quality remote pilot training and education are vital components in the safe advancement of the commercial UAS industry, and are essential in an industry where there is an increasing number of commercial remote pilots.

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Drone U is one of the largest drone training providers in the United States offering over 30 online classes. In addition, they offer in-person operational drone training and advanced photogrammetry trainings at locations across the United States.
https://dronedj.com/2019/08/22/droneu-flight-mastery-drone-insurance-skywatch/#more-18593

Airbus Granted Waiver for Urban BVLOS Drone Flights Kate O'Connor August 22, 2019

Airbus Aerial has received a waiver from the FAA to conduct urban unmanned aircraft systems flight operations beyond visual line of sight and without requiring a visual observer in Grand Forks, North Dakota. The flights will be conducted under the North Dakota Department of Transportation's UAS Integration Pilot Program.

The North Dakota team is working on safe ways to use UAS technology while conducting flights over people, night flights and BVLOS. "Waivers of this magnitude are not achieved unless you have an innovative team of partners that are working for the advancement of UAS integration initiatives while keeping safety at the forefront," said North Dakota Department of Transportation UAS program administrator Russ Buchholz.

Airbus Aerial is a division of Airbus that focuses on aerial data collection, analysis and distribution. In North Dakota, the company will be working with Xcel Energy, using a fixed-wing drone to fly BVLOS over Xcel's residential distribution network. https://www.avweb.com/recent-updates/unmanned-vehicles/airbus-granted-waiver-for-urban-bvlos-drone-flights/?MailingID=137&utm_source=ActiveCampaign&utm_medium=email&utm_content=Ten+Survive+Fiery+Rejected+Takeoff%2C+Ultra-Long-Haul+Research+Flights+Being+Conducted&utm_campaign=Ten+Survive+Fiery+Rejected+Takeoff%2C+Ultra-Long-Haul+Research+Flights+Being+Conducted+-+Friday+August+23%2C+2019

Iris Automation Enables BVLOS Operations for Drones in Kansas and Beyond August 21, 2019 Juan Plaza

Many people throughout the drone industry believe that flights beyond visual line of sight will enable countless mainstream applications of the technology that will truly transform the way we live.

They will do everything from enable the same-day delivery of goods to the automatic inspection of miles of infrastructure. That's why the work that the Kansas Department Of Transportation is doing as a member of the FAA Integration Pilot Program is so important, and why the news about KDOT receiving permission from the FAA to conduct the

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first-ever BVLOS drone operation in the nation leveraging only onboard detect-and-avoid systems was received with such enthusiasm. It's another critical step in the effort to demonstrate that BVLOS flights are safe and can be integrated with manned aviation in controlled airspace.

The result of a shared effort between Kansas State University Polytechnic Campus, Westar Energy, Iris Automation and KDOT, the Kansas IPP team will fly a nine-mile track to evaluate technologies to inspect power lines in rural Kansas. This approval is the first of its kind for long line linear infrastructure and is the first step to enabling routine commercial infrastructure inspections across the state. https://www.expouav.com/news/latest/iris-automation-bvlos-operations-drones-kansas/?mkt_tok=eyJpIjoiWmpsaE1XUXdNVFprTldVMSIsInQiOiJMK2U1aHFEU3lPK3lSeW1xQjRuQzE5a3R2WVc2ZkNtaDJWVEFhR09ZN2lMN0xqc2xQUUdXYlNYUDU5OWNzVmtvTmNvU3FzcGljOThPM1JGWnFXWTUxOXpyeXBFbmlHUlpTODEwbnN5UUtXRVwvS09PK2lSd3MwanpEeXVUa0M1aDYifQ%3D%3D

Volocopter Unveils Next-Generation eVTOL Design Kate O'Connor August 21, 2019

German urban air mobility developer Volocopter introduced its fourth-generation electric vertical takeoff and landing aircraft design on Wednesday. The VoloCity, which is intended for use as an urban air taxi, is expected to have a range of 35 km (19 NM), a top airspeed of 110 km/h (59 knots), and a payload capable of accommodating two people and "hand luggage." Design updates include aerodynamically shaped rotor beams and a new stabilizer.

"The VoloCity is our most powerful Volocopter yet. It is rigorously designed to meet the demands of Urban Air Mobility and incorporates all requirements of the SC-VTOL certification standard established by EASA in July 2019," said Volocopter CEO Florian Reuter. "With the VoloCity we will open the first commercial routes and bring Urban Air Mobility to life."

Volocopter has completed more than 1,000 test flights in earlier eVTOL models, with its first manned test flight completed in 2011. The company's next public test flight is scheduled to take place in Singapore during the final quarter of 2019. It is working with organizations such as Frankfurt International Airport operator Fraport to establish plans for air traffic management systems integration and develop infrastructure for air taxi services in interested cities.

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https://www.avweb.com/recent-updates/evtols-urban-mobility/volocopter-unveils-next-generation-evtol-design/?MailingID=137&utm_source=ActiveCampaign&utm_medium=email&utm_content=Ten+Survive+Fiery+Rejected+Takeoff%2C+Ultra-Long-Haul+Research+Flights+Being+Conducted&utm_campaign=Ten+Survive+Fiery+Rejected+Takeoff%2C+Ultra-Long-Haul+Research+Flights+Being+Conducted+-+Friday+August+23%2C+2019

UAVOS Has Developed an Unmanned Helicopter To Be Manufactured In UK August 22, 2019 News

UAVOS and ISR Unmanned Technologies Ltd. have announced that two companies had developed the new unmanned helicopter ISR-350-5 designed for commercial and security operations.

It is based on the UVH- 170 UAV developed by UAVOS, a light, single-engine, gasoline-powered helicopter. With a fuel consumption of 2 liters per hour, the UAV is expected to stay airborne for up to 6 hours. The payload of up to 5 kg is intended for survey instruments and radar.

UAVOS has also worked on payload integration and offers different options covering all types of applications for multiple sectors: from surveillance, inspection, agriculture and mining to mapping, LIDAR or GIS. Payloads include: gimbals with cameras with day and night vision, up to 30x optical zoom and high resolution and infrared sensors. The autopilot makes it possible to synchronize the work of a payload and onboard telemetry. https://uasweekly.com/2019/08/22/uavos-has-developed-an-unmanned-helicopter-to-be-manufactured-in-uk/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_08_23_2019&utm_term=2019-08-24

AeroVironment Donates 87 Quantix Drones to 35 U.S. University Agriculture Departments August 22, 2019 News

AeroVironment, Inc. today announced its 2019 Quantix and AV DSS University Collaboration Project. The project's focus is to advance academic research, applications and crop production practices to improve the future of farming through the use of unmanned aircraft systems and advanced data analytics.

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Through the project, AeroVironment has donated 87 Quantix™ hybrid drone and AV DSS™ ecosystems to the agricultural departments of 35 universities throughout the U.S.

Participating universities will employ the aircraft in a variety of in-field trials, application usage studies and precision agriculture systems research covering areas such as crop nutrient and input management, artificial intelligence for detecting weeds, pests and diseases and improved accuracy of crop yield prediction. Participating universities will share their hands-on experience, along with use-case insights that can improve in-field performance and advance the adoption of drone-based technologies for the agriculture industry.

Professor Quirine Ketterings, Cornell University Nutrient Management Spear Program said "Ultimately, our goal is to develop accurate corn yield predictions based on in-season nitrogen applications to achieve an optimal economic return for the producer."

The aircraft can survey 400 acres in just 45 minutes. During flight, integrated sensors capture high-resolution color and multispectral imagery via dual 18 megapixel cameras. On-board processing wirelessly transmits imagery to the operating tablet as soon as the drone lands, allowing growers to investigate issues while still in the field. Quantix integrates with AV DSS to perform advanced image processing and data analytics including True Color, NDVI, GNDVI, canopy coverage, anomaly detection and more, providing users with deeper insights into plant emergence, vegetative health, inputs and resource management.
https://uasweekly.com/2019/08/22/aerovironment-donates-87-quantix-drones-and-av-dss-ecosystems-to-35-u-s-university-agriculture-departments/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_08_23_2019&utm_term=2019-08-23

Crocodile spotting drones on Australian swimmer safety mission APPLICATION

BUSINESS EMERGENCY SERVICES INTERNATIONAL NEWS ALEX DOUGLAS AUGUST 22, 2019

The same technology has also been used in the past to help find sharks swimming in close proximity to beach-goers.

Designed by The Ripper Group in collaboration with the University of Technology in Sydney, it is currently being used in Queensland.

According to a report from Sky News, Little Ripper Group co-founder Paul Scully-Power said the Queensland government approached his company to help with its work in keeping beach-goers

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safe. It went on to detail how the drones have been equipped with a siren and a speaker system and can drop flotation pods if needed to help up to four people. https://www.commercialdroneprofessional.com/crocodile-spotting-drones-on-australian-swimmer-safety-mission/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-310383-Commercial+Drone+Professional+DNA+-+2019-08-22

Leopard seals share their suppers The Economist Aug 17th 2019

Work just published in *Polar Biology* by James Robbins of Plymouth University, in Britain, suggests that seals actually look for a dining partner.

James Robbins of Plymouth University in Britain and his team were studying leopard seals in the waters around South Georgia, an island in the Southern Ocean 1,500km from the tip of the Antarctic Peninsula. Instead of diving, or watching from ships, they used drones to carry out their observations. These drones recorded hitherto unobserved behavior on the part of the animals.

First, belying their solitary reputation, the seals came together in groups to attack king penguins (twice the size of the gentoo penguin in the photograph) that were entering the sea from a rookery on the island. Second, when a seal did catch a penguin in these circumstances it would sometimes offer to share it with a neighbor in a way reminiscent of divers' tales of gift giving. What looked like an aberration might thus be a normal way of behaving. But why?

Sharing a penguin with a neighbor makes it easier to eat. A close look at footage the drones recorded shows that seals in such partnerships take it in turns to feed. One holds the bird tight in its jaws while the other rips off a chunk of flesh and swallows it. Then they swap roles. By contrast, for a lone seal to reduce a penguin to bite-sized chunks means whipping the prey around in its jaws with as much force as it can muster, in order to tear lumps of flesh free from the carcass. This commonly happens, but is thought to be extremely tiring. Better, therefore, to find a buddy and enjoy a meal together. https://www.economist.com/science-and-technology/2019/08/17/leopard-seals-share-their-suppers

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Unmanned Aircraft Systems Guide for Virginia Airports Commonwealth of Virginia Department of Aviation

New report soon to be available on their website http://doav.virginia.gov/

18-Month Study Shows What Happens When a Drone Hits Your Face The Engineer2 days ago

The Alliance for System Safety of UAS through Research Excellence (ASSURE) has carried out an eighteen-month study to answer what happens when a drone collides with a human being. The research was led by the University of Alabama, Huntsville in collaboration with Mississippi State University, the National Institute for Aviation Research at Wichita State University and others.

The research team not only wanted to ascertain the kinds of injuries that would take place but also to come up with safety testing methodology and make recommendations to the FAA for creating rules. This is the only detailed and science-based study of its kind.

ASSURE carried out 512 impact tests and simulations with sixteen different vehicles carrying different objects and payloads with total weights from 0.71 to 13.2 pounds. Full anthropomorphic and head-and-neck-only impact tests were conducted as well as Post Mortem Human Surrogate impact tests.

The most common injuries were lacerations, cuts, and bruises. Only one incident of serious eye damage occurred. Accidental death by drone would be very rare.

Companies now have standards and methodology for testing that can lead to design changes. At the 8 to 10 pound range, mass and design elasticity start to combine to make more serious injuries. Many payloads do not have the elasticity that the vehicles have because of their construction. Both construction and mass have a role in defining injury potential.
https://wonderfulengineering.com/18-month-long-study-shows-what-happens-when-a-drone-hits-your-face/

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UPS seeks to expand nascent drone delivery service Josh Fisher Aug 23, 2019

UPS, in a federal filing this week, said that commercial drone delivery still has technical challenges to solve, which it hopes to figure out by expanding its testing. The company flew the first FAA-sanctioned commercial drone delivery earlier this year.

The company is seeking exemption from FAA regulations to allow its UPS Flight Forward division to expand, according to its application, published Aug. 22 in the Federal Register. In that filing, the largest for-hire carrier in North America shared more details on its unmanned drone delivery business plans.

Since March, UPS has been part of a pilot program that delivers medical samples via Matternet drones at WakeMed's flagship hospital and campus in Raleigh, NC. The Unmanned Aircraft System Integration Pilot Program is overseen by the FAA and North Carolina Department of Transportation. https://www.fleetowner.com/technology/ups-seeks-expand-nascent-drone-delivery-service

FAA asks public not to attach guns, bombs, or flamethrowers to drones Sean O'Kane@sokane1 Aug 23, 2019

Image: FAA

The Federal Aviation Administration would like you to know that drones and weapons are "a dangerous mix." The government agency sent out a notice on Thursday "warning" the public "that it is illegal to operate a drone with a dangerous weapon attached.

"Perhaps you've seen online photos and videos of drones with attached guns, bombs, fireworks, flamethrowers, and other dangerous items," the FAA writes. "Do not consider attaching any items such as these to a drone because operating a drone with such an item may result in significant harm to a person and to your bank account."

The agency helpfully reminds everyone in the notice that operating a drone that's wielding a dangerous weapon is a violation of Section 363 of the 2018 FAA Reauthorization Act, which can result in fines of up to $25,000 for each violation.

People in the US certainly *have* been strapping weapons to their commercial drones since the technology took off a few years ago, including one particular hobbyist from Connecticut who's

run the gamut from pistols to flamethrowers. It's not often that the government chimes in with an official notice accompanied by boomer meme-style graphics like the one seen above.
https://www.theverge.com/2019/8/23/20829812/faa-drone-weapons-warning-quadcopters

Drones on the farm: Using facial recognition to keep cows healthy MOLLY PRICE AUGUST 22, 2019

Technology for farming in rural America is a very important piece of our future puzzle, and together a team of professors and student researchers at the University of Kentucky are working to build an automated drone system that can monitor cattle health in the pasture.

According to the team's research, 2.5 million US cattle die every year from health issues, accounting for 60% of the cattle losses. Compare that to 220,000 lost to predators or other accidents, and the stats make a strong case for paying more attention to cattle health.

The type of cattle the team is hoping to monitor is cattle in beef production, a major industry across the U.S. and a significant export.. If farmers had a way to remotely and autonomously check on the location and health of each cow, they can address cattle health and safety issues much sooner.

That's where the drones come in. The goal of the system is to identify each cow, locate it in a pasture and measure vital health information like weight, size, facial features and physical activity.

The autonomous UAV system in development at the university could potentially locate, recognize and monitor each cow. The project, funded under a grant from the USDA, began in February 2018 and is slated to continue through February 2021. https://www.cnet.com/news/drones-and-facial-recognition-could-help-keep-cows-healthy/

New Drone Flight Facility Headed for the SBY Airport Aug 16, 2019 Brooke Reese

SALISBURY, Md. - A new drone facility has been given the green light at the Salisbury Regional Airport.

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Sentinel Robotics Solutions has signed on for a five-year agreement with Wicomico County to operate unmanned aircraft testing out of a new 8,000 square-foot hangar at the airport.

Salisbury-Wicomico Economic Development Executive Director Dave Ryan says this will create around 25 new jobs and lots of positive effects for the county's economy. “We think there's lots of opportunities here, and we're pursuing everything we can," Ryan said.

The new space will include a hangar and office space so other drone operations and manufacturing could move into land around the airport.

The Maryland Department of Commerce has approved a $100,000 grant to help with project costs. http://www.wboc.com/story/40928504/new-drone-flight-facility-headed-for-the-sby-airport

NASA Selects Five Companies for CubeSat Deployer Supply IDIQ

Mary-Louise Hoffman August 26, 2019 Contract Awards, News

Five companies have won positions on a potential five-year, $18M contract to supply NASA with miniaturized satellite deployment systems. NASA said on Saturday that its Kennedy Space Center will place orders for CubeSat dispenser hardware, associated mass simulators and mission integration services through the indefinite-delivery/indefinite-quantity contract.

Such commercial dispensers are designed to carry very small satellites aboard a launch vehicle and release the nanosatellites in space at a scheduled time.

Tasks will include flight hardware assembly, qualification and acceptance testing, flight dispenser integration and interface control document development services.

The awardees are:

- Maverick Space Systems
- NanoRacks
- TriSept
- Tyvak Nano-Satellite Systems
- Xtenti

The CubeSat 3 ordering period commenced Friday. https://www.govconwire.com/2019/08/nasa-selects-five-companies-for-cubesat-deployer-supply-idiq/

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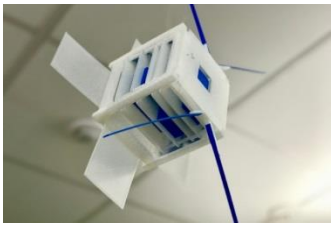
Small Satellites Get a Big Boost August 16, 2019

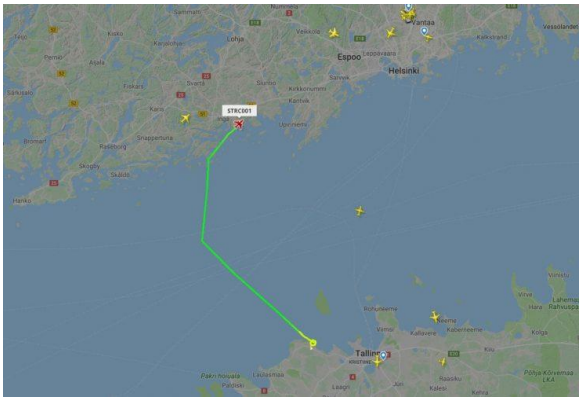


The Virginia SmallSat Data Consortium, a collaborative research center led by Old Dominion University and Virginia Tech, was awarded $1.5 million in grant funding Tuesday from the Virginia Research Investment Fund in its second funding round.

The two-year grant will support the launch of the consortium, which also includes the Virginia Commercial Space Flight Authority and NASA Langley Research Center. The project has secured $1.8 million in additional funding as a condition of the grant award. The State Council of Higher Education for Virginia administered the competition, and the Virginia Research Investment Committee members selected the final award.

"This translational research center grant is an early win for ODU's Virginia Institute for Spaceflight and Autonomy (VISA)," said Morris Foster, vice president for research at Old Dominion. "Part of VMASC (Virginia Modeling Analysis & Simulation Center), VISA was funded in the most recent session of the General Assembly to help catalyze the unique commercial Spaceflight and Autonomy opportunities in Virginia, particularly those at the Wallops Flight Facility on the Eastern Shore. This award recognizes ODU's leadership in aerospace in Virginia and its close partnerships with Virginia Tech, Virginia Space, and NASA Langley."
https://www.odu.edu/news/2019/8/smallsat_consortium#.XWQvuONKh0w

GOF U-Space demonstrator project pioneers over-the-Baltic drone delivery flight August 24, 2019 Philip Butterworth-Hayes UAS traffic management news



What-is-understood to be the world's first successful international drone delivery mission under the management of an independent UTM system – certainly the world's first over-sea international drone delivery under UTM control – has taken place across the Baltic with the flight of a drone taking off from Estonia and landing in Finland.

A Threod Systems Stream UAV took-off from Muraste in Estonia and landed 1:10 hours later in Torbacka, Finland, according to social media posts from project participants. The 90km flight includes flying the drone at approximately 4,500 ft AMSL under the management of a pre-operational flight information management

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system (FIMS) with an architecture capable of integrating existing commercial-off-the-shelf U-Space components.

The trial is part of the on-going SESAR U-Space Gulf of Finland (GOF) project which has the goal of building and demonstrating a FIMS capable of managing different live visual line of sight (VLOS) and beyond visual line of sight (BVLOS) missions simultaneously by competing tactical UAS traffic management service providers. https://www.unmannedairspace.info/news-first/gof-u-space-demonstrator-project-pioneers-over-the-baltic-drone-delivery-flight/

27Aug19

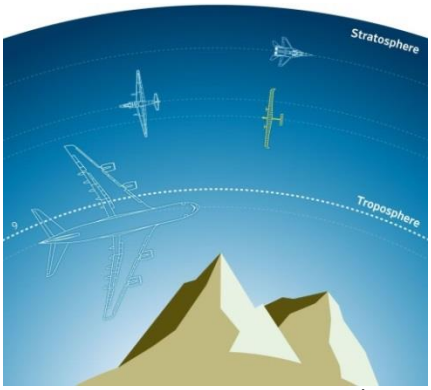
Drone Ambitions Soar to the Stratosphere Mike Cherney Aug. 26, 2019

An Airbus Zephyr drone in Arizona

SYDNEY—The stratosphere is a frontier for competition between aviation and technology giants that say highflying, solar-powered drones could offer advantages over conventional satellites, including lower costs, easier maneuverability and quicker deployments.

Subsidiaries of Airbus SE, Boeing Co. BA 0.85% and Japanese tech conglomerate SoftBank Group Corp. are developing stratospheric drones, which could fly unaided for months and take pictures or beam down internet services some 60,000 feet or more to the ground. They are betting the technology could create markets with military or commercial customers.

One challenge is designing a drone that is lightweight, but has relatively long wings, so that it can generate sufficient lift while flying slowly in the thin stratospheric air. Some researchers expect a new generation of affordable, smaller satellites will offer similar services to stratospheric drones.



Research firm NSR said in a report last year that high-altitude aircraft, including stratospheric drones, balloons and airships, could bring in $1.7 billion in revenue over the next decade and estimated there were about 40 development programs under way. Drones are likely to complement existing satellite networks. They could be used as relays between satellites and ground stations to improve

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data transfer, reducing the infrastructure needed on the ground and in space.

Sophie Thomas, who manages Airbus's Zephyr program, said the current model's first test flight, last year in Arizona, lasted nearly 26 days. The drone has a wingspan of 80 feet, weighs about 165 pounds, and flies autonomously using solar-powered propellers to as high as 75,000 feet. https://www.wsj.com/articles/drone-ambitions-soar-to-the-stratosphere-11566822941?mod=itp_wsj&ru=yahoo

US to take on Chinese-dominated drone market with manufacture investment

BUSINESS DJI HEADLINE NEWS INTERNATIONAL MANUFACTURER ALEX OUGLAS AUGUST 27, 2019

The Pentagon said it was hoping to recruit investors to invest in small American drones.

An article from CNN detailed how it is the first effort under a new Defense Department program aimed at linking "trusted" sources of private capital with "innovative companies critical to defense industrial base and national security."

Undersecretary of defense for acquisition and sustainment, Ellen Lord, described how the Trust Capital Marketplace will initially focus on small drones because of DJI's low-cost dominance in the commercial space.

She said: "Essentially we don't have much of a small UAS industrial base because DJI dumped so many low-price quad-copters on the market. We then became dependent on them both from the defense point of view and the commercial point of view. And we know that a lot of the information is sent back to China from those. So it is not something that we can use."

Lord said defense officials would be traveling around the country to meet with potential investors as well as representatives from industry to help facilitate the process.
https://www.commercialdroneprofessional.com/us-to-take-on-china-dominated-drone-market-with-manufacture-investment/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-310614-Commercial+Drone+Professional+DNA+-+2019-08-27

Bell Textron completed first autonomous flight with APT 70

APPLICATIONMANUFACTURERNEWSUNITED STATES ALEX DOUGLAS AUGUST 27, 2019

Bell Textron has confirmed the successful first autonomous flight of the Autonomous Pod Transport (APT) 70 at the company's testing site near Fort Worth.

Hoping to build on the success, it says it plans to continue to test the vehicle under an experimental type certificate throughout the remainder of the year.

Scott Drennan, VP for innovation, commented: "The APT is designed to be capable of various mission sets, from package delivery to critical medical transport to disaster relief." It can reach speeds of more than 100mph and has a baseline payload capability of 70 lbs.

Through the NASA Systems Integration and Operationalization demonstration activity, Bell will use the APT 70 to demonstrate a simulated commercial mission in the national airspace system and conduct beyond visual line of sight flight operations. The demonstration is expected to be held in mid-2020. https://www.commercialdroneprofessional.com/bell-textron-completed-first-autonomous-flight-with-apt-70/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-310614-Commercial+Drone+Professional+DNA+-+2019-08-27

Transformable Multi-Domain Autonomous Unmanned System Unveiled 27 Aug 2019

Robotic Research LLC, a developer of autonomy and robotic technologies, has announced the unveiling of Pegasus, a transformable autonomous UAS/UGV hybrid. It provides enhanced flexibility and performance for military battlefield reconnaissance and combat operations including intelligence, surveillance and reconnaissance missions, as well as dealing with chemical, biological, radiological, nuclear and high yield explosives. The AI-powered system features obstacle avoidance and full 3D mapping and can operate in almost any terrain

"We're excited to be presenting Pegasus as the first transformable robotic system — it's a new category of robots," said Alberto Lacaze, president of Robotic Research. "Nothing before Pegasus has had the reach or versatility of this system. We look forward to sharing this with our customers in the U.S. military, as well as within commercial sectors and areas such as public works."

Other features of the Pegasus hybrid UAV/UGV include:

- Autonomous operation in both UAV and UGV modes

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- 20 minutes flight endurance and four hours ground mode endurance
- Payload capability of up to 2lbs
- Operation with or without GPS
- 3D environmental mapping

https://www.unmannedsystemstechnology.com/2019/08/transformable-multi-domain-autonomous-unmanned-system-unveiled/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=a0bf65ce97-eBrief_2019_Aug_27&utm_medium=email&utm_term=0_6fc3c01e8d-a0bf65ce97-119747501

Hybrid VTOL UAV Released with Autonomous Charging 23 Aug 2019

HEISHA have released a new unattended fixed-wing VTOL UAV designed for property and private land surveillance that is capable of autonomous charging.

Designed primarily for ground and property inspections, the D.NEST S300 is a fixed wing UAV with VTOL capabilities. The platform can be launched via a smart phone and incorporates the C300 auto-charging station, which keeps it safe and stable while charging.

The remotely operated inspection system includes the drone, charging pad, command center and cloud-based services all seamlessly controlled via cell phone. Capable of autonomous missions, it is designed to save time and support daily life by carrying out routine inspection work.

Providing live aerial video feed, the D.NEST S300 includes control logic and an updated telemetry module with LTE/5G technology to provide seamless data collection and transmission. https://www.unmannedsystemstechnology.com/2019/08/hybrid-vtol-uav-released-with-autonomous-charging/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=a0bf65ce97-eBrief_2019_Aug_27&utm_medium=email&utm_term=0_6fc3c01e8d-a0bf65ce97-119747501

28Aug19

General Atomics Authorized to Perform Unmanned Flights Sans Chase Aircraft

Jane Edwards August 28, 2019 News, Technology

The Federal Aviation Administration has given General Atomics' aeronautical systems business a certificate of waiver or authorization to use a ground-based sense and avoid system in unmanned flight operations in North Dakota.

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The COA authorizes General Atomics to use its Predator B remotely piloted aircraft to perform beyond visual line of sight operations up to 60 nautical miles of the company's flight test and training center near Grand Forks, N.D., without the need for a chase aircraft, General Atomics said Tuesday.

"This COA will open the skies for more unmanned flights around our North Dakota facility and establish North Dakota as a UAS Training Site of Excellence for Global Customers," said David Alexander, president of General Atomics Aeronautical Systems.

General Atomics associated the COA with the Northern Plains UAS Test Site which has VueStation and RangeVue systems from L3Harris Technologies, the Grand Forks Air Force Base Air Surveillance Radar-11 and other sense-and-avoid technology platforms. The FAA authorization has one-year validity and will begin on Aug. 31.
https://www.govconwire.com/2019/08/general-atomics-authorized-to-perform-unmanned-flights-in-north-dakota-sans-chase-aircraft/

Virginia Beach DroneUp awarded contract to further its reach SANDRA J. PENNECKE INSIDE BUSINESS AUG 27, 2019

Unmanned aerial systems at DroneUp LLC will soon be taking flight to another level. The 3-year-old Virginia Beach company was awarded the first multistate contract to provide public sector access to its services. The unprecedented initiative led by Virginia's Department of General Services and the National Association of State Procurement Officials will enable state agencies to have more affordable access to problem-solving data and imagery.

After a 14-month competitive process that included bidders from throughout the U.S., the firm was the only one to be selected in all 12 service zones and in all five service categories: emergency support; law enforcement; aerial inspection or mapping data; agricultural and gaming; and agency media relations and marketing.

DroneUp currently employs 25 full-time workers in-house and has a fleet of 8,000 contract pilots throughout the U.S, including 500 licensed operators in 61 countries.
https://www.pilotonline.com/inside-business/vp-ib-droneup-contract-0902-20190827-2atjpztm7rd7zguejynvh4ruq4-story.html

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Z Advanced Computing Gets Air Force Funding for 3D Image Recognition Tech In UAVs Matthew Nelson August 28, 2019In: News, Technology

The technology utilizes ZAC's Explainable-AI tool to allow image searching capacities in various areas, including medical imaging, biometrics and security. Additionally, the Explainable-AI tool

will enable the technology to recognize 3D attributes and objects from any angle or perspective.

"With our approach, complex 3D objects can be recognized from any direction, using only a small number of training samples," said Saied Tadayon, chief technology officer at ZAC. https://blog.executivebiz.com/2019/08/z-advanced-computing-gets-air-force-funding-to-integrate-3d-image-recognition-tech-into-uavs/

AUVSI UNMANNED SYSTEMS & ROBOTICS DATABASE

AUVSI's Unmanned Systems and Robotics Database is the largest comprehensive and searchable database of all unmanned vehicles and robotic products operating in the air, ground and maritime domains. Up-to-date, detailed information on unmanned vehicles and robotic products. Data spans civil, commercial and military markets.

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Wake County schools grounded drones. They could be allowed back in the air again. BY T. KEUNG HUI AUGUST 28, 2019

The Wake County school system is developing a new policy that would regulate how schools and outside groups could fly drones on school property. School leaders say they recognize the educational benefits of using drones but want to make sure they're operated in a way that won't put the district at legal risk.

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"Schools have been on hold with the few that have used drones," Lloyd Gardner, Wake's chief of staff, told school board members on Tuesday. "This will start accelerating the use of drones."

The board's policy committee backed the proposed policy. It's scheduled to go to the full school board for initial approval on Sept. 17.
https://www.newsobserver.com/news/local/education/article234403132.html

30Aug19

These drones can bring you drugs Staff Writer / Tri-City News AUGUST 29, 2019

The over-water trial was a collaboration between Canada Post, London Drugs and Indro Robotics

Transport Canada has successfully completed its first long-distance, beyond visual line-of-sight drone flight in a trial that delivered an Epi-Pen and Narcan kit from a London Drugs in Duncan to a grocer and patient's house on Salt Spring Island. The Aug. 19 flight, which lasted 11 minutes and covered 6 km, shows that delivering medication over large bodies of water via drone is a feasible proposition in Canada.

The trial brought together Canada Post, InDro Robotics and London Drugs under the guidance of Transport Canada. The data gathered from the flight will be used as part of a wider set of BVLOS trials run by Transport Canada to figure out how it will regulate drone deliveries in cases where the operator cannot see the aircraft. Other simulated deliveries include flights over icy roads and rough terrain. https://www.tricitynews.com/news/these-drones-can-bring-you-drugs-1.23931580

Air Force Base Selects Dedrone for Small UAS Threat Tracking and Defense Solution August 28, 2019 Counter UAS News

Dedrone announced the continuation of their license agreement with F.E. Warren Air Force Base. F.E. Warren was selected to test the Dedrone platform in June of 2018 as part of a DIU testing phase that included six Department of Defense facilities and has been continuously testing, evaluating and using the capability for over a year.

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Minuteman III missiles are deployed at F.E. Warren over a 9,600 square-mile area spanning Wyoming, Nebraska, and Colorado and are on full alert 24-hours a day, 365 days a year.

Dedrone's DroneTracker collects and aggregates sUAS data and displays it in real-time. It detects, classifies and tracks sUAS and can be configured to automatically trigger alerts and countermeasures when a threat is confirmed. https://uasweekly.com/2019/08/28/air-force-base-selects-dedrone-for-small-uas-threat-tracking-and-defense-solution/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_08_29_2019&utm_term=2019-08-29

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