UAS and SmallSat Weekly News

Contents

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

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Autonomous drone wireless charging market to grow 400% INNOVATION

INTERNATIONAL NEWS TECHNOLOGY UNITED STATES SAM LEWIS JANUARY 10, 2020

The autonomous drone wireless charging and infrastructure market has been forecast to grow from $47m at the end of 2018 to $249.3m in 2024, according to a report by BIS Research. This would constitute an impressive CAGR 34.78%, as noted by the report, titled 'Global Autonomous Drone Wireless Charging and Infrastructure Market – Analysis and Forecast 2019-2024'. High growth rate in the market signals desire to further automate UAV operations.

With the drone wireless charging technology, autonomous drones will automatically find a predetermined landing pad that also acts as a wireless charger. This removes the need for a person to manually plug in the drone after every operation. The technology is particularly useful for beyond-visual-line-of-sight use.

Sudheer Uniyal, lead analyst at BIS Research, commented: "The increasing demand for BVLOS drones in different commercial applications will fuel the market for the wireless drone charging system. A drone with high payload capacity and endurance needs more power backup for continuous operations." https://www.commercialdroneprofessional.com/autonomous-drone-wireless-charging-market-to-grow-400/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321056-Commercial+Drone+Professional+DNA+-+2020-01-10

Altitude Angel chosen as lead provider for the African Drone Forum and Lake Kivu Challenge APPLICATION BUSINESS ALEX DOUGLAS JANUARY 10, 2020

It will take place in February 2020 on the shores of Lake Kivu, Rwanda.

The 2020 African Drone Forum comprises a symposium, expo, business plan competition and a series of automated drone flying competitions which are designed to showcase how emerging technology can improve the lives of people in hard-to-reach rural communities.

It is a multi-stakeholder initiative supported by the World Bank, UK Department for International Development /UK Aid, World Economic Forum, World Food Programme, UNICEF,

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Danida and other partners in collaboration with the Government of Rwanda. The symposium and expo will be taking place in Kigali from February 5 to 7, 2020, with competitive flights commencing on February 8, 2020.

The Lake Kivu Challenge flying competitions are designed to illustrate the real-world applications of airspace management, delivery and autonomous flight. Altitude Angel will provide the Flight Information Management System. https://www.commercialdroneprofessional.com/altitude-angel-chosen-as-lead-utm-provider-for-the-african-drone-forum-and-lake-kivu-challenge-2020/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321056-Commercial+Drone+Professional+DNA+-+2020-01-10

Blue innovation and Kyocera to Develop Drone Moving Communication Relay Stations January 9, 2020 News

innovation Co., Ltd. and Kyocera Corporation announced today that the companies reached an agreement to jointly develop new drone solutions.

By flying multiple drones in areas where mobile phone signals do not reach, such as disaster sites, the "moving communication relay station system" enables mobile phone communication. By combining Blue innovation's system technology which enables remote control of several drones, with Kyocera's wireless communication technology, the companies will develop a moving drone-enabled communication relay station. The companies will begin field testing under LTE and 5G networks, aiming toward commercialization by March 2022. https://uasweekly.com/2020/01/09/blue-innovation-and-kyocera-to-develop-new-drone-solutions-utilizing-moving-communication-relay-station-system/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_10_2020&utm_term=2020-01-10

Bell Reveals the City of the Future at CES 2020 January 9, 2020 News

Bell Textron Inc. reveals a vivid look into the future of the smart city ecosystem. The Bell Nexus air taxi and the Autonomous Pod Transport – both groundbreaking technologies – will coexist to move people, products and

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information across connected cities.

"With a focus on the passenger experience, we revealed the technology and the vehicle that will revolutionize transportation in cities. This year, we're demonstrating what governing, operating, working and living in a smart city will look like," said Mitch Snyder, Bell president and CEO.

In a world where nearly 70 percent of the population will be living in urban areas by 2050 and cities are outgrowing their current transportations systems, the need for urban mobility solutions has never been greater. Fortunately, many of the world's top minds are working toward solutions for the optimal smart city design. Bell remains at the forefront of this pursuit with a clear mission of finding solutions to the infrastructure challenges of tomorrow's transportation networks. https://uasweekly.com/2020/01/09/bell-reveals-the-city-of-the-future-at-ces-2020/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_10_2020&utm_term=2020-01-10

Uber and Hyundai Have Established a Drone Taxi System That Just Might Work

Harry McNabb January 10, 2020

With Uber's leadership position in ridesharing and urban mobility, and Hyundai's expertise in vehicle manufacturing, the pair could have what it takes to get the market in urban air mobility moving.

The system is comprised of 3 main components. "S-I is what connects the air to the ground via a multi-prop and rotor drone," explained the spokesperson,"including a parachute deployment system for added safety."

Second is the S-Link: a land based transport vehicle. "Think of it as an upgraded cable car," said the spokesperson. It is configurable, and the same unit could be used for "delivering, shuttle purposes, mobile restaurants – even a medical clinic… it's mobility on the go."

Third is the S-Hub – something that could look like a new shopping mall.

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"The top level is a landing pad for the S-1," explains the spokesperson, "and the base as a commercial hub that might contain things like shopping space. The is a hub where the S-link can come into dock." https://dronelife.com/2020/01/10/uber-and-hyundai-have-established-a-drone-taxi-system-that-just-might-work/

Flyability and Pix4D: Drone Companies Partner to Bring Indoor Inspections to the Next Level Miriam McNabb January 10, 2020

Flyability's Elios series offers a unique and sophisticated solution to the problem of using drones in small, dark and difficult spaces. The innovative cage around the drone allows pilots to navigate narrow areas like the insides of mines, girders, ship hulls and more.

Swiss company Pix4D provides an elegant mapping and modeling solution for a wide variety of commercial and law enforcement uses. The partnership will provide Elios customers with 3D modeling capabilities, allowing them a new level of data to assess problems during the inspection process.

"3D modeling brings tremendous value to inspection professionals on multiple fronts," says Flyability's Marc Gandillon. "When looking at a defect using remote visual inspection technology, the information you get on the video stream is flat. You can easily spot cracks, corrosion, or other visually-featured defects. However, sometimes, this is not sufficient and depth perception is required to assess the severity of a defect. By building a local 3D model focused on a point of interest inside an asset, you get depth perception that often helps inspectors make a decision," says Gandillon. https://dronelife.com/2020/01/10/flyability-and-pix4d-drone-companies-partner-to-bring-indoor-inspections-to-the-next-level/

PowerEgg X is an AI camera that turns into a drone Josh Spires Jan. 10th 2020

This year at CES, PowerVision showed off its latest product the PowerEgg X, a stationary camera, a camcorder, and a drone all in one. It is a waterproof camera with a flight time of 30

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

minutes, 4K 60 fps video, flies in winds up to 38 kph and can take off on water. The camera has a 1/2.8" sensor capable of 12MP photos and 4K 60 fps video at 75 Mbps.

It can be used as a handheld camera thanks to the removable arms, which also increases the battery life to three and a half hours. It also has face detection allowing it to automatically track a person keeping them in view of the camera. You can dub your voice over the footage using the mobile app, and it has gesture controls.

With a waterproof shell for the drone and pads for the feet, it can land and take off on water. It has a flight time of 30 minutes, the ability to track subjects, and built-in quick shots.

You can order the PowerEgg X now for $899 which will get you the camera, drone arms, one battery, remote, extra propellers, camera strap, and a camera bag. If you are looking to get the waterproof housing, two batteries, even more propellers, and the water landing pads, it will set you back $1,249. https://dronedj.com/2020/01/10/poweregg-x-ai-camera-drone/#more-22879

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The Pentagon wants self-sufficient search-and-rescue drones Chiara Vercellone

Drones with AI to track and estimate where forest fires will move is part of the work supported by JAIC.

WASHINGTON – The Department of Defense is seeking input from industry partners on using artificial intelligence and drones in humanitarian aid and disaster relief missions. In a Dec. 23 request for information, the Pentagon's Joint Artificial Intelligence Center called for market research to identify existing technology that could contribute to the rapid deployment of self-sufficient drones on disaster response operations. The drones should be able to fly a predetermined area and find people or man-made objects, on land or at sea, in tough conditions including haze, clouds, fire and other obstacles. They should prompt when to examine findings through a remote digital monitor, allowing analysts to simultaneously focus on other missions without having to constantly watch the monitor. They must be capable of operating for at least two hours at 50 knots airspeed; cover a minimum of 100 square nautical miles during flight; be launched from various air, sea and ground platforms; search a geofenced area; and resist being dropped from another aircraft in flight. Responses should be submitted electronically no later than Jan. 20.

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https://www.c4isrnet.com/industry/2020/01/06/the-pentagon-wants-self-sufficient-search-and-rescue-drones/?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=49947cbdc2-EMAIL_CAMPAIGN_2020_01_12_01_12&utm_medium=email&utm_term=0_2ecada6f57-49947cbdc2-33089729

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US may permanently ground civilian drone program over China fears Jon Fingas

Financial Times sources claim the department plans to permanently end use of nearly 1,000 drones after determining there was too high a risk of the Chinese government using them for spying purposes. While there reportedly isn't a final policy, Interior Secretary David Bernhardt would once more limit uses to emergency situations like firefighting. Normally, the drones would be used for less urgent situations like mapping terrain and tracking resources.

Staff across the department have apparently balked at the proposed program shutdown over concerns it would disrupt genuinely helpful drone activity. *FT* said it saw documents showing that the Fish and Wildlife Service had to cancel flights for counting animals and monitoring controlled burns, while the Geological Survey has used drones for agricultural monitoring, earthquake prep and flood responses. Unless the Interior Department can find US-made drones (which might not happen for years), it would have to either rely on far costlier and riskier crewed aircraft or else drop certain projects altogether. https://www.msn.com/en-us/news/technology/us-may-permanently-ground-civilian-drone-program-over-china-fears/ar-BBYTghe

GAO: FAA Must Publicly Share Data from UAS Test Sites Brenda Marie Rivers January 10, 2020 News

The Government Accountability Office has recommended the Federal Aviation Administration establish a data analysis strategy for information collected on drone test sites and publicly share such data while protecting individual operators.

GAO said Thursday that the FAA did not fully leverage test site data, which can help improve the integration of unmanned aerial systems into the national airspace and support the development of operational standards. FAA must also take steps to publicly disclose how data collated from the sites will support the agency's UAS integration efforts, according to the watchdog. "By sharing more information publicly, FAA could demonstrate to such stakeholders

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robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

how the agency is fostering and using research to inform and advance integration," GAO noted. "Further, with more information, more stakeholders may opt to use a test site to conduct their own research, thus potentially increasing data available to FAA to inform its integration decisions." FAA's seven UAS test sites have facilitated over 15,000 research-related UAS flights since 2015. https://www.executivegov.com/2020/01/gao-faa-must-publicly-share-data-from-uas-test-sites/

F/A-18 Fighter's New Best Friend: Boeing Is Prepping an Armed Wingman Drone

David Axe The National Interest January 12, 2020

The Australian subsidiary of the Chicago-based plane-maker is developing the so-called "Airpower Teaming System" using company funds as well as $27 million from the Australian military.

Boeing revealed the 38-feet-long Loyal Wingman drone at the Australian International Airshow at Avalon in February 2019. The drone has the distinctive, sharp angles of a radar-evading stealth aircraft.

But the most novel part of the Airpower Teaming System/Loyal Wingman is invisible. Algorithms and radio datalinks allow human operators aboard manned planes or on the ground to command the highly autonomous drones.

"The idea of a robot wingman is that it can keep pace with manned planes, but be tasked out for parts of the mission that you wouldn't send a human teammate to do," said Peter W. Singer, author of *Wired for War*. https://news.yahoo.com/f-18-fighters-best-friend-210000949.html

Drone spending earmarked to smash $16 billion this year RESEARCH ANDREW SEYMOUR JANUARY 13, 2020

and is forecast to grow at a 33.3% CAGR, one of the world's most prominent analyst firms has declared.

According to IDC, spending on drones will continue to be dominated by hardware purchases with more than 90% of the category total going toward consumer drones, after-market sensors, and service drones in 2020.

Drone software spending will primarily go to command and control applications and drone-specific applications while services spending will be led by education and training. Software will

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robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

see the fastest growth (38.2% CAGR) over the five-year forecast, followed closely by services (37.6% CAGR) and hardware (32.8% CAGR).

Consumer spending on drones will total $6.5 billion in 2020 and will represent nearly 40% of the worldwide total throughout the forecast. Industry spending will be led by utilities (£1.5 billion), construction (£1 billion) and the discrete manufacturing and resource industries (£924m each).

The fastest growth in drone spending over the five-year forecast period will come from the federal/central government (63.4% CAGR), education (55.9% CAGR), and state/local government (49.9% CAGR). https://www.commercialdroneprofessional.com/drone-spending-earmarked-to-smash-16-billion-this-year/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321158-Commercial+Drone+Professional+DNA+-+2020-01-13

Swedish startup Skyqraft takes $505,000 in first funding round INTERNATIONAL NEWS SAM LEWIS JANUARY 13, 2020

Since it was founded last March, the company has focused on providing UAV-based infrastructure inspections for power lines.

The idea is to cut down on the traditional method of using helicopters. Skyqraft inspections detect problems with a power grid and collect photographic evidence. The funding will allow it to develop its software as much as its hardware.

Its main investor is Antler VC, which invested in over 120 companies in its first year, spending tens of millions of dollars.

Speaking to *TechCrunch*, Skyqraft co-founder and CMO Sakina Turabali commented: “Power-line inspections most importantly are not environmentally friendly, very costly and unsafe with the use of helicopters and people.

“We provide smart infrastructure inspections using unmanned airplanes by gathering images and 360 videos and feeding that data into a machine learning system that automatically detects any risk to the power-lines”. https://www.commercialdroneprofessional.com/swedish-startup-skyqraft-takes-505000-in-first-funding-round/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321158-Commercial+Drone+Professional+DNA+-+2020-01-13

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Silent Falcon E1 Surpasses 500 Hours of Flight Test Time January 10, 2020 News

Silent Falcon™ UAS Technologies (SFUAS), an Albuquerque-based service provider and original equipment manufacturer announced that the Silent Falcon E1 UAV has completed 500 hours of successful flight testing and operations. It is a solar electric, fixed wing, Unmanned Aircraft System. It is noise-free, emission-free, and provides long-range, low-cost ISR capability. With a payload capacity of 20 lbs. and a ceiling of 20,000 feet AGL, the E1 is an ideal platform for data collection in both harsh and peaceful environments.

Successfully passing 500 hours of flight is a significant milestone for the E1, confirming for federal regulators that it is a safe and durable aircraft model. They have operated in eight foreign countries and are not ITAR restricted. There are no parts containing Chinese content.

The company supports the American workforce by using its own US design and manufactures aircraft, sensors, and software in New Mexico. https://uasweekly.com/2020/01/10/silent-falcon-e1-surpasses-500-hours-of-flight-test-time/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_13_2020&utm_term=2020-01-13

Cannabis delivery drones are likely to fly above Seattle this year Josh Spires Jan. 13th 2020

GRN Holdings announced the move publicly in December when it signed a letter of intent to purchase drones for cannabis delivery.

They will be equipped with iPads to allow for simple payments and will be flown by certified pilots. The move to drones was thanks to the lower costs — around 10 times cheaper than current delivery methods. They hold up to 40 kg of marijuana and are able to operate within a 10 km radius of the take-off point.

The company will employ around 20 people in the city to recharge the drones, calibrate them, and ensure they are in working order.

A possible issue could be the drones being shot down, as they'll be carrying thousands of dollars worth of marijuana. The drones will likely need to have no branding, or even false

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

branding on them, to deter those looking to make some easy money.
https://dronedj.com/2020/01/13/cannabis-delivery-drone-seattle-year/

South African insurance companies use drones for inspections Josh Spires Jan. 13th 2020

Drones have proven their use in fields such as mining, agriculture, and now insurance thanks to their lower costs and maneuverability. According to Hippo.co.za's executive head, Vera Nagtegaal, insurance companies have been testing drones in South Africa for the last couple of years.

Drones are able to limit the number of false reports and claims coming from customers as they are able to get better views of affected areas in a fraction of the time. Even consumer-grade drones are able to capture photos that are able to be inspected and looked at closely.

Old Mutual iWYZW insurance has already demonstrated itself to the South African Civil Aviation Authority and is currently getting its remote pilot license. The company plans to expand its drone use in the next few years across all areas of insurance offered.
https://dronedj.com/2020/01/13/south-african-insurance-drone-inspections/

DARPA Funds Machine Learning Research for Drone Swarms 13 Jan 2020 Mike Ball

Charles River Analytics, a developer of intelligent systems technologies, has announced that it has been awarded funding under the DARPA OFFensive Swarm-Enabled Tactics (OFFSET) program to develop machine learning approaches that can be applied to drone and unmanned system swarming capabilities. The project is known as Meta-Reinforcement Learning Innovation for Robust Swarm Tactics (MERLIN-RST).

OFFSET swarm tactics, based on biology-inspired algorithms and machine learning, help groups of unmanned vehicles work together in an adaptable fashion in to achieve mission objectives. The new MERLIN effort will augment existing OFFSET simulators to model swarm performance in a wide range of challenging urban environments. It build on other recent work for the OFFSET program, including Ecological User Interfaces for Rapid Operational Teaming with Autonomous Swarms (EUROPA) and Swarm Algorithms and Tactics for Urban Reconnaissance and Isolation (SATURN).

SATURN gave heterogeneous swarms of unlimited size resilient behavior while achieving mission objectives, while EUROPA gives operators better control in urban environments by providing multimodal user interfaces tailored to tactical operational environments. Other technologies include the MINOTAUR interface for controlling robotic leader-follower systems, the AMPT framework for supervising unmanned vehicles, and the CROWSNEST maritime traffic awareness solution for an unmanned surface vessel (USV).
https://www.unmannedsystemstechnology.com/2020/01/darpa-funds-machine-learning-research-for-drone-swarms/?utm_source=UST+eBrief&utm_campaign=9ac41da71b-eBrief_2019_14_Jan&utm_medium=email&utm_term=0_6fc3c01e8d-9ac41da71b-119747501

RAF to launch swarming drone squadron in April 13 JANUARY 2020 NEWS Harry Lye

Announcing the project in February last year at the Royal United Services Institute Williamson said: “I have decided to use the Transformation Fund to develop swarm squadrons of network-enabled drones capable of confusing and overwhelming enemy air defences. We expect to see these ready to be deployed by the end of this year.” At the time Janes reported that the drones would be used to locate and confuse anti-air infrastructure so conventional aircraft could destroy it. Announcing the project, Williamson said that it was designed to complement the “leading edge” technology of the F-35 Joint Strike Fighter.

The MOD previously gave more details on the programme saying that the drones would work alongside fighter aircraft like the F-35 and Eurofighter Typhoon to increase their lethality.
https://www.airforce-technology.com/news/raf-swarming-drones/

Colorado public safety’s search for mysterious drones comes up empty SHELLY BRADBURY sbradbury@denverpost.com The Denver Post January 13, 2020

Red lights from wind turbines OBJ OBJ OBJ are seen in the distance, in Lincoln County, on Jan. 2, 2020 in Genoa. Some residents in the area believe the mystery drones are doing mapping for wind turbine companies.

After conducting several field operations aimed at identifying the reported drones, the Colorado Department of Public Safety came up empty.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Investigators checked into 23 reports of drone activity during field operations between Jan. 6 and Jan. 13 but did not identify any of the large drones as described by witnesses. Of those 23 reports, 13 sightings were determined to be planets, stars or small hobbyist drones; six sightings were atmospheric conditions or commercial aircraft; and in four sightings, law enforcement confirmed that they saw something but couldn't tell what.

A task force of local, state and federal agencies was created on Jan. 6 to further investigate the reports; the effort involved surveillance from planes as well as law enforcement officers on the ground. The Colorado Information Analysis Center began taking reports of drones in November, although its field operations only began on Jan. 6. The Denver Post first reported the mysterious flights on Dec. 23 after the Phillips County Sheriff's Office posted about the drones on its Facebook page.

Since Nov. 23, the agency has received a total 90 reports of drones. Fourteen of those reports were determined to be hobbyist drones that did not fit the description of large wingspan drones traveling in groups. https://www.denverpost.com/2020/01/13/drones-colorado-public-safety-search-empty/

Hybrid Quadcopter Drone Tested for Precision Agriculture 11 Jan 2020 Mike Ball

Quaternium has tested its HYBRiX drone with precision agriculture applications using the hybrid quadcopter to spray fertilisers in orange fields near Valencia, Spain. Quaternium recently achieved a new endurance multirotor drone record accomplishing a flight lasting 4 hours and 40 minutes.

It is powered by a hybrid electric-fuel system with a fuel capacity of 5 litres, giving the aircraft a flight endurance of between 2 to 4 hours. The UAV can carry up to 10 litres of liquid with a maximum takeoff weight of 25 kg. The drone can operate without the need for farmers to take heavy batteries out into the field.

Farmer Pedro Andreu commented: "I am really glad to see that the entire spraying process in my orange fields has hardly taken 6 hours. With other drones, we had to spend multiple hours waiting for batteries to charge and days to finish the work."
https://www.unmannedsystemstechnology.com/2020/01/hybrid-quadcopter-drone-tested-for-precision-agriculture/?utm_source=UST+eBrief&utm_campaign=9ac41da71b-eBrief_2019_14_Jan&utm_medium=email&utm_term=0_6fc3c01e8d-9ac41da71b-119747501

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robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Schiebel Camcopter S-100 Deployed For River Pollution Crisis in Malaysia January 14, 2020 News

In March 2019, more than two tons of illegal chemical waste were dumped in the Kim Kim river near the largest industrial area in the South of Malaysia. Toxic fumes were released affecting more than 6,000 people with many being hospitalized and numerous schools closed.

The Malaysia Ministry of Energy, Science, Technology, Environment and Climate Change, in collaboration with the Malaysian Armed Forces (MAF), called for an emergency disaster response to analyze and scan the polluted river and adjoining area. The CAMCOPTER® S-100 was deployed from March to September 2019 by MAF, supported by Schiebel's partner Three Tis Group, to gain situational information in the affected area.

The UAS was operated day and night for 30 flight hours. It was equipped with FLIR Systems Star SAFIRE 380-HDc, which delivers stabilized multi-spectral imaging and intelligence functions. https://uasweekly.com/2020/01/14/schiebel-camcopter-s-100-deployed-for-river-pollution-crisis-in-malaysia/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_14_2020&utm_term=2020-01-14

Alaska Signs Participating Addendum with DroneUp Media Contact Amy Wiegand 757-657-4886

Virginia Beach, VA (January 14, 2020) -- DroneUp, LLC and the State of Alaska have signed a Participating Addendum for the NASPO ValuePoint contract for Unmanned Aerial Vehicle services. This begins the offering for the purchase of drone solutions to all state agencies, commissions, political subdivisions, institutions, and local public bodies allowed by law. The award is the first of its kind for the drone industry.

The services under the award are available for use by all 50 states, the District of Columbia, and the territories of the United States through the National Association of State Procurement Officials (NASPO) ValuePoint Cooperative Purchasing Organization. The State of Alaska is now able to use the award for the benefit of state departments, institutions, agencies, political subdivisions, and other eligible entities.

DroneUp's award includes Emergency Support Services, Law Enforcement Support, Aerial Inspection or Mapping Data Services, Agricultural and Gaming, and Agency Media Relations and

Marketing. Primary users will be Agriculture & Game Management, Emergency Management, Transportation, Forestry, Mines, Minerals and Energy, and Public Universities and Community Colleges. For further information: https://www.naspovaluepoint.org/portfolio/unmanned-aerial-vehicle-drone-services-2019-2024/droneup-llc/

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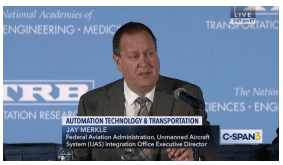
Six Urban Air Mobility Aircraft 'Well Along' in Type Certification, FAA's Merkle Says Brian Garrett-Glaser January 14, 2020



Six aircraft intended for urban air mobility application are "well along" in pursuing type certification with the Federal Aviation Administration, said Jay Merkle, head of the FAA's UAS integration office, at the Transportation Review Board's annual meeting in Orlando, Fla.

Merkle ensured the audience that urban air mobility is "more than just hype … this is more than just promotional videos." He described the sector as meeting future demand for regional aerial trips ranging from 30 miles to 300 miles.

"We have at least six aircraft well along in their type certification, which is the first step in introducing a new aircraft into operation," Merkle said. "We are beginning to work on integrating them operationally, so the pilot requirements, the airline operating requirements, and then we're also beginning to work on the airspace integration as well."

The agency has not released any new certification requirements particular to urban air mobility, like the special condition for VTOL aircraft that EASA released last summer, suggesting these aircraft are using existing pathways. https://www.aviationtoday.com/2020/01/14/six-urban-air-mobility-aircraft-well-along-type-certification-faas-merkle-says/

Heathrow installs Operational Solutions' bespoke anti-drone system APPLICATION COUNTER-DRONE HEADLINE NEWS UK ALEX DOUGLAS JANUARY 15, 2020

This counter-drone system at Heathrow works by detecting and tracking drones in surrounding airspace and alerting airports of unauthorized use quickly and efficiently. This system also works to locate the drone pilots themselves and can be used to identify their location.

Operational Solutions says it has specifically been designed for Heathrow Airport, integrating for the first time a variety of leading counter drone technologies from different manufacturers.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

It went on to explain how the kit will enhance detection capabilities and minimize delays, helping passengers to get away on time and also help the airport meet its sustainability objectives by reducing the fuel wastage and additional flight stacking caused by unauthorized drone use. https://www.commercialdroneprofessional.com/heathrow-installs-operational-solutions-bespoke-anti-drone-system/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321429-Commercial+Drone+Professional+DNA+-+2020-01-15

Listen to This! The BBB Bistro Podcast – Consumer Insights on Drones Miriam McNabb January 15, 2020

The Better Business Bureau (BBB) Podcast Series, The Bistro, features a drone panel this week – with DRONELIFE Editor-in-Chief Miriam McNabb and Matt Scassero, Director of the UMD UAS Test Site. Listen to Matt and Miriam discuss the biggest achievements – and hurdles – for the commercial drone industry.

We are on the brink of a whole new era of aviation. Our skies are bound to be buzzing with drones in the coming years. Matt Scassero, Director of UMD UAS Test Site, and Miriam McNabb, Editor in Chief of DroneLife.com spark up a great discussion on the future of the drone industry and its impact on consumer data and privacy. Tune in now!
https://www.businessfwd.org/news/podcast/?utm_medium=email&utm_source=businessfwd&utm_content=6+-+Click+here+to+listen+to+thenbspAnswering&utm_campaign=20200114+Answering+America+Podcast+Launch+2&source=20200114+Answering+America+Podcast+Launch+2

Drone Light Show Shines Over Mexican Hot Air Balloon Fest Jason Reagan January 14, 2020

UAV event specialist Verge Aero illuminated what the Philadelphia company is calling Mexico's first-ever drone light show.

Working with partner Sky Precision, Verge Aero launched an array of 150 drone-mounted lights, creating dancing, multi-color images in the sky during the Festival Internacional del Globo hot-air balloon festival to celebrate Día de Muertos

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Founded in 2002, the FIG is based in the city of León. Seeking to provide a new approach to traditional fireworks displays, festival organizers hired Sky Precision and Verge Aero to choreograph a show. The presentation included performances by guitar maestros Rodrigo y Gabriella and Dutch DJ Martin Garrix.

"We are excited to have hosted the first drone show ever here in Mexico," FIG CEO Escandra Salim Alle said. "The show content was amazing. The enormous crowd loved the drone show and our social media had a blast!" https://dronelife.com/2020/01/14/drone-light-show-shines-over-mexican-hot-air-balloon-fest/

16Jan20

Wing Aviation looks to the UK for next flights Josh Spires Jan. 15th 2020

Wing Aviation, Google's drone delivery, is now venturing into the UK by starting a new holding company to possibly launch delivery drones. Wing Aviation isn't the first company to use the UK as testing grounds for drones as Amazon was given permission back in 2015 to begin testing its Prime Air drones.

The holdings company set up by Wing Aviation will allow the company to move into the UK and start working with the CAA to allow them to test and eventually begin deliveries by drone. The move could take up to nine months before receiving permission.

Wing Aviation is currently delivering goods to a few suburbs in east Australia, making deliveries of coffee and food along with small medicines.. https://dronedj.com/2020/01/15/wing-aviation-uk-next-flights/#more-22969

Apple Taps Drone Specialist to Lobby Washington on Aviation Mark Gurman and Ben Brody January 15, 2020

Apple Inc. has engaged a specialist in drone and aviation law as a Washington lobbyist, suggesting the company is pushing further into the growing field.

The Cupertino, California-based tech giant retained Lisa Ellman, a parter at Hogan Lovells, to conduct the lobbying. Ellman leads the law firm's Unmanned Aircraft Systems practice. She also co-founded the Commercial Drone Alliance and is working to expand the commercial drone industry, according to her biography online.

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robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

The company used drones a few years ago to help it collect mapping data. In December, it met with regulators about a proposed law that would require drones to sport virtual license plates. The company also sells several drones from DJI through the Apple website and Apple retail stores.

Apple has a team exploring satellites, a type of unmanned aircraft, and Ellman could assist in regulatory efforts that would need to be conducted to launch such an effort. Apple rivals, including Amazon.com Inc. and Alphabet Inc., have developed drones in recent years.
https://www.bloomberg.com/news/articles/2020-01-15/apple-taps-drone-specialist-to-lobby-washington-on-aviation

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Toyota leads $590m Joby Aviation Series C funding round to launch air taxi service

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Prior investors, including SPARX Group, Intel Capital, Capricorn Investment Group, JetBlue Technology Ventures, Toyota AI Ventures, and AME Cloud Ventures, also contributed to the round, and were joined by new investors Baillie Gifford and Global Oryx. Shigeki Tomoyama, the executive vice president of Toyota Motor Corporation, will join Joby Aviation's board of directors.

The new investment brings the company's total funding, including previous rounds, to $720m.

Joby Aviation says its mission is to bring fast, affordable, and zero-emissions air mobility to communities worldwide.

Over the past 10 years, the company's team of engineers and physicists has developed a quiet, all-electric VTOL aircraft, which will be instrumental in the commercial launch of the emerging on-demand urban air taxi market.

Following the funding-led round, Toyota will share its expertise in manufacturing, quality, and cost controls to support the development and production of Joby Aviation's aircraft.

This support, along with the capital investment, will accelerate the certification and deployment of this new mode of local transportation.
https://www.commercialdroneprofessional.com/toyota-leads-590m-joby-aviation-series-c-funding-

round-to-launch-air-taxi-service/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321641-Commercial+Drone+Professional+DNA+-+2020-01-17

Paragon's drone service flies to 200 job milestone APPLICATION NEWS UK ALEX DOUGLAS JANUARY 17, 2020

Having launched in 2018 following the recruitment of an ex-Formula One drone expert, the service provides clients with what Paragon describes as 'faster, richer and more cost-effective,' versus traditional methods.

Since then, the consultancy has completed 37 separate portfolio projects, 163 roof surveys and 20 drone mapping projects spanning a total of 752 hectares. Completed projects include fly-over marketing videos of a portfolio of 17 commercial properties for Marriott Asset Management, surveying a portfolio of five shopping centers for Praxis and drone mapping at Stanley Park Golf Club in Blackpool to create 250 holiday lodges and an adventure zone.

Commenting on the success, Paragon head of drone services, Elliott Garrett, said: "Reaching this milestone is an outstanding achievement for us, driven by continually growing client demand. Many of Paragon's clients have now fully embraced and embedded drone services into their day-to-day working. https://www.commercialdroneprofessional.com/paragons-drone-service-flies-to-200-job-milestone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321641-Commercial+Drone+Professional+DNA+-+2020-01-17

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