UAS and SmallSat Weekly News

Contents

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WiBotic Announces a Wireless Power System for DJI Matrice 200 Series Drones August 31, 2018 News

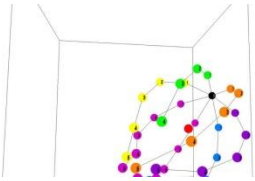
WiBotic today announced a new wireless power system for the DJI Matrice 200 and 210. The wireless power system enables autonomous recharging of the drones so they can be on constant standby or fly repeatedly without the need for human or mechanical battery swapping.

Ground-based transmitter components as well as onboard charging components are included. It is also compatible with the WiBotic PowerPad for companies that want a turnkey solution.

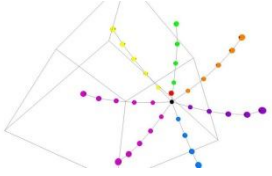
Wireless power system applications include long-term security and defense surveillance, at-the-ready search and rescue missions, methane leak detection at oil well sites, refineries and offshore rigs and tracking progress at constructions sites.
http://uasweekly.com/2018/08/31/wibotic-announces-a-wireless-power-system-for-dji-matrice-200-series-drones/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_08_31&utm_term=2018-08-31

3Sep18

Networked UAV Defense Swarms to defend against malicious drones August 31, 2018 Ingrid Fadelli Tech Xplore



A team of researchers at the University of Luxembourg have developed a new feasible and efficient defense system for unmanned aerial vehicles. Their system, outlined in a paper pre-published on arXiv, consists of a defense UAV swarm that can self-organize its defense formation when it detects an intruder, chasing the malicious UAV as a networked swarm.



To address the security issues associated with UAVs, Brust and his colleagues developed a new defense system that can intercept and escort malicious or rogue drones outside of the flight zone. Their system is comprised of a swarm of UAVs that can organize its defense formation automatically when detecting an intruder, chasing it and neutralizing the threat.

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"We developed a modular and local algorithm, which runs on each drone to enable it to make the right decision autonomously based on the state of its neighboring drones—forming a so-called 'intelligent swarm' of drones," Brust explained. "After initial deployment and detection of an intruder, the defense drones form a self-organized network and intercept the intruder by isolating it through a local encapsulation algorithm from its environment to escort it out of the flight zone." https://techxplore.com/news/2018-08-networked-uav-defense-swarms-defend.html

Sheriff's Office Using Drone to Search for Missing Virginia Man Erica Jones Aug 30, 2018

The Loudoun County Sheriff's Office is using its police drone to search for a man who is missing from neighboring Fairfax County.

The sheriff's office says his vehicle was found in the area of Piggott Bottom Road and Swanbourne Drive in Blue Ridge, Virginia, just before 10:46 p.m. Wednesday. The sheriff's office set out Thursday morning with their search and rescue team and drone to look for the man. No further information has been released.

Last year, the sheriff's office used their police drone to find a 92-year-old hunter who had gone missing in a heavily wooded area in Virginia. The sheriff's office said it was the first successful use of the new drone, which is equipped with infrared and high resolution cameras. https://www.nbcwashington.com/news/local/Sheriffs-Office-Using-Drone-to-Search-for-Missing-Virginia-Man-492075171.html

Cape May County Airport plans massive drone research facility with federal grant MICHAEL TANENBAUM AUGUST 29, 2018

A $3 million federal grant from the Department of Commerce will soon bring a new drone training and innovation facility to the Cape May County Airport.

Commerce Secretary Wilbur Ross announced this week that the airport will receive help to build a 20,000-square-foot complex for multiple tenants in the unmanned aerial systems industry, which has seen exponential growth over the past decade. Each of the companies in the planned facility will receive 5,000 square feet of space, including offices and manufacturing areas. The grant comes through the department's Economic Development Administration and was awarded by the Trump administration to spur the region's further growth in the drone sector.

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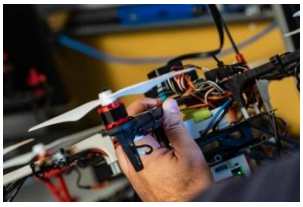
"Building the new 'tech village' right at Cape May County Airport will not only immediately create good-paying jobs, the final training facility will also empower entrepreneurs and businesses in the fast-growing field of unmanned aerial vehicles," said Senator Bob Menendez.

Estimates from the grantee say the new facility will create 130 jobs and draw $1.9 million in private investment. https://www.phillyvoice.com/cape-may-county-airport-drone-research-facility-federal-grant-new-jersey/

Gas Detecting Drone Wins $1.5M Funding From NSF Sarah Whittaker August 28, 2018

Researchers from Rice University have won $US1.5 million in funding for a drone they are developing that is able to detect volatile gases and chemical compounds. The drones, which are being developed in collaboration with Baylor College of Medicine and Houston's not-for-profit Technology for All, are designed to fly as a network to track and model airborne environments, warning those present of potentially hazardous volatile organic compounds.

The funding, awarded by the National Science Foundation to Rice U electrical and computer engineer Edward Knightly and his collaborators, will allow further development of the aerial system which combines next-generation wireless and sensing technologies.



Riccardo Petrolo, a postdoctoral researcher in Knightly's lab, explains how the system improves upon current systems for alerting people of the presence of dangerous gases. "Now, if there's a chemical leak, people may not learn about it for a couple of days, but our system can inform them immediately through their mobile phones," he said in a press release.

On being deployed, the drones use in-board sensors and transmitters to coordinate in the air, creating a 3D record of the local air quality with advanced modelling techniques that have been developed by fellow Rice environmental engineering professor Rob Griffin.

They have been designed to work autonomously, explains Yingyan Lin, a Rice professor of electrical and computer engineering who is developing machine learning methods for the drones. "We might need someone in a car to pick them up, or they might have a base station on the ground, but day-to-day, they should be able to take off, track plumes and send that information back through the internet," Petrolo said. "The platform is fully agnostic. There's no reason it can't support cameras and other wireless sensors to, for instance, find someone in an

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emergency response situation."https://dronebelow.com/2018/08/28/gas-detecting-drone-wins-1-5m-funding-from-nsf/

Filmmaker jailed following drone 'spying' at political rally NEWS REGULATION ALEX DOUGLAS SEPTEMBER 3, 2018

Australian filmmaker James Ricketson has been sentenced to six years imprisonment after Cambodian authorities caught the documentary-maker using a drone to view a political rally.

Ricketson, 69, argued that he was using the drone to take photos for a documentary he was working on.

In court, friend of Ricketson, BAFTA-winning director Peter Weir, testified in his defence stating that Ricketson was a victim of an 'unfortunate misunderstanding'. Relatives told how the filmmaker has been travelling to Cambodia for 22 years to record the lives of the poor in the country.

Prosecutors argued that Ricketson had used journalism as an excuse for spying, citing links to former Australian prime minister Malcolm Turnbull and the opposition Cambodian National Rescue Party. http://www.commercialdroneprofessional.com/filmmaker-jailed-following-drone-spying-at-political-rally/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-273705-Commercial+Drone+Professional+DNA+-+2018-09-03

Uber shortlists five countries for its international Air City launch program August 31, 2018 Philip Butterworth-Hayes UAS traffic management news

Uber Elevate has announced the five shortlisted countries that could be home to the first international Uber Air City within the next five years. According to a company statement, after evaluating countries across the globe, Uber has chosen Japan, India, Australia, Brazil and France to be the host States for its air taxi program. Uber is looking to enable urban aerial ridesharing globally, starting in 2023. Dallas and Los Angeles were previously announced as the first two US launch cities. The Uber Elevate team is now inviting conversations with stakeholders across major cities in these countries, and will announce the chosen Uber Air international city within the next six months.

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In India, Mumbai, Delhi, and Bangalore are some of the most congested cities in the world, where traveling even a few kilometers can take over an hour. Japan is home to one of the world's most enviable public transit systems and a world leader in the technology and automotive industries. It has invited Tokyo and Osaka to explore the future of transportation with Uber. In Australia, Uber has already held talks with local policymakers and the Australian Civil Aviation Safety Authority. In Brazil, the state of São Paulo, is home to its partner Embraer, and is also one of the most active helicopter markets, indicating clear demand for urban aerial ridesharing. It is also set to open an Advanced Technology Center in Paris.
https://www.unmannedairspace.info/uncategorized/uber-shortlists-five-countries-international-air-city-launch-programme/

Airbus launches "Blueprint" UTM roadmap, predicts 19,269 drones an hour above Paris in 2035 August 31, 2018 Philip Butterworth-Hayes UAS traffic management news

In its inaugural "The Blueprint," Airbus outlines its vision for a future global UTM system, breaking down the market into requirements and concepts for airspace, systems, regulation and stakeholders, to be able to handle the future predicted traffic loads. The publication has been reviewed by experts from across the industry – including AirMap, GUTMA, NATCA, the World Economic Forum and MIT.

"There may be multiple providers for any given microservice," says the report. "For example, there may be several traffic management service providers, each performing real time tracking and deconfliction. A cargo company with a large fleet may operate a service that only manages their flights. Other services would be available for anyone to use as part of a marketplace. The authority would certify services, ensure interoperability and perform audits."

"A microservices approach does not mean that all functions will be served by multiple players. Governments may operate a services directory to ensure that only microservices which meet applicable certification requirements are able to operate. Others may operate a service to ensure that all parties have an identical, real-time view of traffic."

In terms of identifying key enabling technologies, Airbus believes a combined detect-and-avoid and airspace management will be needed to keep drones safely apart.
https://www.unmannedairspace.info/uncategorized/airbus-launches-blueprint-utm-roadmap-predicts-19269-drones-hour-paris-2035/

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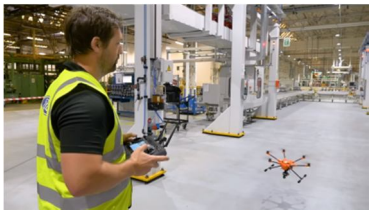
Ford workers fly drones to safely inspect engine plants! September 3, 2018 Thomas Luna



Ford employees at the company's Dagenham Engine Plant in the UK started using drones to safely and efficiently conduct inspections. Previously, plant inspections took as long as 12 hours to complete each area, so with the introduction of aerial

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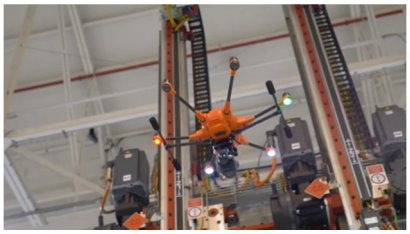
technology, an inspection now only takes 12 minutes.

Instead of using automated extendable platforms and scaffolding to manually check gantries that are over 130-feet-long, a single drone could be used.


The drone pilot can see everything that the camera sees in real time thanks to the controller's built-in monitor, so Ford employees don't have to worry about falling while making inspections.

According to CNBC, Ford used to shut down a plant at least once a year to check gantries, and teams of up to six employees used to bring in motorized lifts. Now, a drone team of two is all it takes to get the job done, and plant operations can still continue, even with a drone inspection.

Equipped with an interchangeable camera system, the drone can take videos or photos with a wide, zoom or thermal imaging camera.

"We'd joked about having a robot do the work when there was a lightbulb moment – use drones instead," said Manning "We used to have to scale heights of up to 50 metres (165 feet) to do the necessary checks on the roof and machining areas. Now we can cover the entire plant in one day and without the risk of team members having to work at dangerous heights."
https://www.wetalkuav.com/ford-workers-fly-drones-to-safely-inspect-engine-plants/

Defense giant L3 snaps up Tucson drone firm Latitude David Wichner Arizona Daily Star Aug 31, 2018

Defense giant L3 Technologies has quietly set up shop in Tucson with the acquisition of locally based Latitude Engineering LLC, a provider of hybrid quad-rotor drones.

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One of Latitude's hybrid quad-rotor drones flies over a research vessel owned the California-based Schmidt Ocean Institute.

New York City-based L3 acquired Latitude in late June for $15 million cash, with additional payments of up to $20 million based on certain performance milestones over four years, according to documents filed with federal securities regulators.

Founded by University of Arizona mechanical engineering grad Jason Douglas, Latitude has developed hybrid unmanned aircraft that combine a quadcopter's four rotors for vertical takeoff and landing with a propeller for speedy horizontal flight. L3 has retained all 30 of Latitude's employees at the company, now known as L3 Latitude Engineering.

With annual revenues of nearly $9 billion and about 31,000 employees worldwide, L3 provides products and services across three main business segments: intelligence, surveillance and reconnaissance; electronics; and communications. https://tucson.com/business/defense-giant-l-snaps-up-tucson-drone-firm-latitude/article_09637f1a-4cb7-5953-a1d8-e6759f992bc0.html

DJI's Phantom Drones May Be Blocked From U.S. in Trade Spat Susan Decker Alan Levin August 31, 2018

The world's biggest maker of civilian drones could see its products shut out of the U.S. market after a patent-infringement complaint was filed by smaller rival. SZ DJI Technology Co., a manufacturer of popular hobbyist and commercial drones including the Phantom and Mavic series, is being challenged by Autel Robotics Co.

A DJI Phantom 3 drone

The dispute is over unmanned vehicles used for aerial photography and videotaping, as well as for agricultural purposes.

The China-based DJI is accused of using Autel's patented features for following a flight path while avoiding obstacles, rotor assembly, and a way to switch out battery packs to minimize lag time between flights.

Autel wants the U.S. International Trade Commission to ban imports of models of DJI's Phantom, Mavic, Spark and Inspire drones made in China by DJI, according to a complaint filed in Washington on Thursday.

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Autel, which says it designs and makes its drones in the U.S., contends in the complaint that excluding DJI drones from the U.S. "is likely to improve competitive conditions" in the market by providing opportunities for others, including Autel, Yuneec International Co. and Parrot SA.

Even if DJI's products are excluded, "consumers would still have a variety of products from which to choose that would be manufactured by Autel and other companies."
https://www.bloomberg.com/news/articles/2018-08-31/dji-s-phantom-drones-could-be-blocked-from-u-s-in-trade-spat?yptr=yahoo

Close Up: Drone Inspection From Fences to Tailfins – IPP Tennessee DEE ANN DIVIS AUGUST 31, 2018 AIR, IPP

Fed Ex, which has a global hub at Memphis International Airport, will test using drones to inspect its planes and track equipment on its ramps.

The Integration Pilot Program (IPP) team led by the Memphis-Shelby County Airport Authority will work out how to use drones to check the fence as well as miles of runways and taxiways.

"We have intrusion detection systems built into our perimeter now, said Scott Brockman, the Authority's president and CEO, "but we also have to visually inspect those (fences) X number times a day." To handle the repetitive process more efficiently, Brockman's team is working to develop the safety case for automated, drone-based security fence monitoring. This includes protocols for beyond-visual-line-of-sight operations over people and flights during the day or night. That nighttime element is important because Memphis is a global hub for FedEx and the world's busiest airport between 10 pm and 5:00 am.

The goal is to have an unmanned aircraft system —preloaded with a baseline of what it expects to see and topographical details like ground elevations—circle the perimeter on a preset schedule. The tower will be able to see the unmanned aircraft in that it will look different from a manned aircraft on its radar.

"Our plan, Brockman said, "is to work on a system where that drone automatically lifts off, logs in, starts sending out signals to the communication center and starts to fly the fence line. When it sees something that is different from the baseline, it alarms and sends a signal back with a high-resolution photo of what the problem is. Once released by the com center, it continues

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flying and dispatch either sends somebody or logs in and says there's not a breakdown (in the fence)." http://insideunmannedsystems.com/close-up-drone-inspection-from-fences-to-tailfins/

Faradair Unveils Unmanned Bioelectric Hybrid Firefighting Aircraft 29 Aug 2018

Mike Rees

Faradair Aerospace has announced that it has developed a drone variant of its turboprop-powered Bio Electric Hybrid Aircraft (air tanker).

The ability to fly a fleet of autonomous drones to a fire location providing continuous low level delivery with greater payload capability than helicopters for less operational cost and zero pilot risk is an attractive proposition. Powered by a 2000 horsepower turboprop engine, the aircraft offers fire delivery without risk to a manned crew in repeat cycles over an autonomous track.

To date, former WW2 era bombers and converted civilian jets have been used to deliver large scale firefighting capability, but that scale increases costs and pilot risk. The 11 meter wingspan BEHA M1-AT with a 10 ton payload capability offers the operator an opportunity to acquire a fleet of aircraft for a fraction of the acquisition and operational costs of helicopters, flying in rotation to combat smaller fires and prevent them from becoming larger fires.

The aircraft's 'triple box-wing' configuration allows extremely short take-off and landing capability while also allowing the aircraft to lift large payloads with hybrid flight capability if required. http://www.unmannedsystemstechnology.com/2018/08/faradair-unveils-unmanned-bioelectric-hybrid-firefighting-aircraft/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=9d83b9bf9f-eBrief_2018_Sept_04&utm_medium=email&utm_term=0_6fc3c01e8d-9d83b9bf9f-119747501

Epson Launches New Augmented Reality App For DJI Drone Pilots 29 Aug 2018

Mike Rees

Epson has announced the launch of the Epson Drone Soar app, the first full-featured AR app for DJI drone pilots using the Epson Moverio augmented reality (AR) Smart glasses platform. The app delivers AR experiences for DJI drone users, including rich AR content, flight telemetry data and video feed monitoring.

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Developed by Silicon Valley-based YML, the Epson Drone Soar includes features designed to enhance pre-flight visualization, real-time flight assistance and post-flight visualization experiences. Enabling a hands-free, heads-up experience with the Drone Edition glasses, the application delivers AR features to DJI drone pilots. This functionality allows pilots to simultaneously see telemetry data, augmented flight tools, and real-time video feeds, all while remaining within line-of-site of their drone. As the data is displayed directly in front of the user, pilots no longer need to look down continuously at their mobile device.
http://www.unmannedsystemstechnology.com/2018/08/epson-launches-new-augmented-reality-app-for-dji-drone-pilots/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=9d83b9bf9f-eBrief_2018_Sept_04&utm_medium=email&utm_term=0_6fc3c01e8d-9d83b9bf9f-119747501

The Spry: The First Waterproof Drone That Submerges, Floats Like a Boat August 28, 2018

After 2 years of designing and prototyping, the team at SwellProUSA and Urban Drones has introduced The Spry: the first ever waterproof drone that can briefly submerge like a submarine, float like a boat, and fly in the air at over 43 mph. The Spry has a self-contained 4K camera that can capture video at 30 frames per second, pictures at 12 megapixels, and wirelessly transmit the video signal to a monitor embedded in its waterproof remote control. The waterproof remote control is another first-ever accomplishment in the drone industry.

The Spry is a combination of a racing quadcopter and a photography/videography drone. By merging these two abilities, it will give users the ability to capture high-resolution video and pictures without compromising speed and agility. By turning off the GPS from the remote control, users are able to pilot the Spry freestyle at speeds of over 43mph while flipping and turning tight corners like a racing drone. The waterproof remote control has an integrated 4.3-inch monitor to view the live video feed. This video feed can also be viewed by several video monitors and video googles simultaneously, allowing the pilot to share his flying experience without anyone having to crowd around the remote control.

The Spry will be available for pre-order on Kickstarter for $749. For more information visit Swellprousa.com http://uasweekly.com/2018/08/28/the-spry-the-first-waterproof-drone-that-submerges-floats-like-a-boat/

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Drone company Wingtra unveils plans for international expansion BUSINESS NEWS ALEX DOUGLAS SEPTEMBER 4, 2018

Wingtra is set to open a new office on the US East Coast by the end of 2018, as it plans to further its expansion in the Americas.

The Swiss drone company develops and manufactures professional VTOL drones for mapping and surveying applications.

The new office will create a number of new jobs in the area, with Wingtra particularly on the lookout for sales and support staff. Maximillian Boosfeld, CEO of Wingtra, said: "We are taking this initiative to be closer to our US customers and with greater presence through overcoming time-zone differences and offering a deeper network of support in the Americas."

He added: "Despite our background in robotics, we want to ensure a human element in communication between us and our customers. We look forward to adding more skilled Wingtranauts to our team who would complement the current headquarters in Zurich." The exact location of the new office has not been decided yet.
http://www.commercialdroneprofessional.com/drone-company-wingtra-unveils-plans-for-international-expansion/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-273845-Commercial+Drone+Professional+DNA+-+2018-09-04

5Sep18

Kespry Announces Availability of Pulp and Paper Industry's First UAS-Based Aerial Intelligence Solution September 4, 2018 News

Kespry today announced the availability of the pulp and paper industry's first drone-based aerial intelligence solution. The new industry-specific solution improves the profitability of pulp and paper operations by delivering more accurate and timely supply chain material inventory data, while improving site operations and safety.

"Measuring chip piles at a pulp mill has always been a challenge. In the past, a team of surveyors would climb onto the chip pile and arrive at a manual measurement," said Mitch Dunlop, Accounting Manager, Celgar, a leading North American pulp and paper organization.

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"This method is slow, poses safety concerns and is not very accurate. Hiring a contractor for monthly surveys of the chip pile was not economically feasible. Having the Kespry drone onsite, we can survey the chip pile every month, and we have more accurate inventory volume reporting."

Kespry eliminates these issues by providing production plant managers with accurate survey and inventory data across both production facility and round wood storage sites—data that matches the update frequency required to optimize profitability of the supply chain, and more effective site planning. Not only are plant managers able to optimize the efficiency of how a site is laid out and where material is stored, but the benefits also spread throughout an entire team. For example, site controllers are able to confidently reconcile inventory data with accurate survey data, operation teams can optimize onsite logistics and schedules to accommodate production demand, and supply managers are able to better improve customer material handling with frequent real-time inventory assessments.
http://uasweekly.com/2018/09/04/kespry-announces-availability-of-pulp-and-paper-industrys-first-uas-based-aerial-intelligence-solution/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_09_04&utm_term=2018-09-04

UK start-up Skyports has ramped up its activity in the US

Skyports has so far secured 15 rooftops in London as 'vertipads' for passenger and cargo drones, and is currently negotiating on further sites in the capital.

The company has recently expanded into Finland and the US too.

Duncan Walker, managing director at Skyports, said: "We have 15 in London and a number more under negotiation. We have started work on the east coast of the US and are working with a company in Finland, which has a very progressive aviation authority to start operations there."

Besides venues, Skyports offers technology, regulatory advice and operational skills around drone operations. All sites can accommodate cargo drones, for parcel deliveries with around half being large enough to support passenger drones. Sites are to be equipped with goods and passenger handling facilities, recharging equipment, and communications and guidance equipment. Cargo vertiports, already operational in some markets, will be used by the likes of UPS, Fedex, DHL, as well as logistics companies involved in the delivery of food and other items.

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Passenger vertiports, which still require technology and regulation development, will be used by 'flying-taxi' operators such as Uber to collect and deliver passengers.

Drones are already delivering mail in Singapore, laboratory samples in Switzerland, blood in Africa, and commercial packages in China and Walker thinks within five years, drones deliveries will be commonplace in many cities, including London.
http://www.commercialdroneprofessional.com/uk-start-up-skyports-continues-with-global-expansion/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-273956-Commercial+Drone+Professional+DNA+-+2018-09-05

6Sep18

FAA completes first 4 drone pilots Emma Cosgrove Sept. 5, 2018

The Federal Aviation Administration completed the first four pilots in its Unmanned Aircraft Systems Integration Pilot Program, according to an email sent out by the administration, as reported by Robotics Business Review and others.

The four pilots cover a wide range of applications for commercial drones, including healthcare materials delivery in North Carolina, consumer delivery in Virginia, providing bait to capture feral hogs in Oklahoma, and a beyond line of visual sight flights aimed at agricultural applications in Kansas. These four pilots and the six more to come will be evaluated over the next two years to help the government determine how drones can be safely regulated at the federal, state and local level.

Upcoming pilots include using drones for border protection and food delivery in California, spraying for mosquitos in Florida, supporting airport operations in Tennessee, time-sensitive emergency medical equipment delivery in Nevada and pipeline inspection in Arkansas, as well as a test with multiple applications including agriculture, media and infrastructure inspection in North Dakota. https://www.supplychaindive.com/news/faa-drone-pilots-first-four-complete/531602/

Iowa Sheriff's Office Conducts Drone Training with Healthcare Staff Betsy Lillian September 4, 2018

The Sioux County Sheriff's Office in Iowa recently completed unmanned aircraft systems training with the help of local medical center Sioux Center Health.

The sheriff's office conducted the training at a nursing home, the Royal Meadows Care Center, with a Sioux Center Health employee who played the role of a patient with dementia who wandered into a nearby cornfield and could not be located by search parties.

Not long after joining the search effort, the UAS team of the sheriff's office was able to successfully locate the person in the cornfield. The department says its drone is able to detect heat signatures, as well as offer live views, through infrared and zoom video cameras. https://unmanned-aerial.com/iowa-sheriffs-office-conducts-drone-training-with-healthcare-staff?utm_medium=email&utm_source=LNH+09-06-2018&utm_campaign=UAO+Latest+News+Headlines

senseFly Unveils eBee X Mapping Drone Betsy Lillian September 5, 2018

senseFly has launched the eBee X, capable of up to 90 minutes of flight and comes with a broad range of camera options. The drone is able to achieve single-flight coverage of up to 1,235 ac at 400 ft. with accuracy of 1.2 in without ground control points.

It includes a range of new camera options for various mapping jobs such as land surveying, topographic mapping, urban planning, crop mapping, thermal mapping and environmental monitoring. https://unmanned-aerial.com/sensefly-unveils-ebee-x-mapping-drone?utm_medium=email&utm_source=LNH+09-06-2018&utm_campaign=UAO+Latest+News+Headlines

Walmart Patents Blockchain System for Automated Delivery Drones September 5, 2018 News

A patent application published August 30 indicates that Walmart Inc. may be developing a system where drones may exchange real-time

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information with each other over wireless signals and exchange physical objects.

Titled "Systems, Devices, and Methods for In-Field Authenticating of Autonomous Robots," the system can build a blockchain-based authenticated network of delivery drones where one drone carries a pack to a designated junction where another drone can carry it forward to its ultimate or next transit point. The two drones will use blockchain authenticated signals and keys to verify each other automatically. The data entries will ensure that trust verifications, transfers and ultimate delivery to end destination happen automatically.

It will enable direct delivery from factory to customer within minimal time, as current operations involve a combination of air, rail and road travel with considerable time delays. The system will enable the development of a transit hub-based coordinated network similar to that of a train or air freight where goods are delivered over long distance using multiple vehicles. It will also enable real-time tracking of packages by the designated stakeholders.
http://uasweekly.com/2018/09/05/walmart-patents-blockchain-system-for-automated-delivery-drones/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_09_05&utm_term=2018-09-05

Sentera Received $14 million In Series A funding To Accelerate Adoption Of AI

September 5, 2018 News

Sentera, a Minneapolis-based agriculture technology provider, announced that it raised an additional $14 million in Series A funding from a group of food, biosciences, and agriculture investment firms. Chicago-based S2G Ventures, New York-based Continental Grain Company, and Washington, DC-based Middleland Capital lead the funding group.

"Sentera has seen customer traction with our digital analytics, sensors, and data platform," said Eric Taipale, Sentera's CEO. "We've demonstrated how real-time sensing and analytics can improve economic outcomes. This investment allows us to take these products to scale more quickly, alongside the growers, advisors, and partners who've helped develop and refine our products."

Sentera's sensors and artificial intelligence technology help to detect nutrition, disease and plant status issues ranging from corn and soybeans to vegetables, fruit, and nuts. Deep learning and advanced computer vision algorithms integrate with mobile, sensor, and cloud components to deliver insights to growers, agronomists, and operators.

http://uasweekly.com/2018/09/05/sentera-received-14-million-in-series-a-funding-to-accelerate-adoption-of-ai/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_09_05&utm_term=2018-09-06

PrecisionHawk Acquires Both HAZON, Inc. and InspecTools Inc. September 5, 2018 News

PrecisionHawk, Inc. today announced that it has purchased both HAZON, Inc. and InspecTools Inc. These businesses specialize in the delivery of inspection services and technology for the energy industry and bring demonstrated domain expertise to enable tighter integration between the collection and the analysis of drone data. Both Paul Bingaman, CEO InspecTools, and David Culler, CEO HAZON, will join PrecisionHawk's executive leadership team.

HAZON brings extensive aviation experience, standards-based operating procedures, certified drone flight operations and inspection services to the PrecisionHawk team. The company has delivered over 13,000 inspections totaling over 8,000 hours of flight time, with a majority focused in energy markets for Fortune 500 utilities.

InspecTools brings high-fidelity machine vision software and data analysis tools built for the renewable energy market. Their software for both solar panel and wind turbine inspection is used by some of the largest equipment manufacturers and service providers in the world. Customers like Vestas, PG&E, and SMA Solar rely on InspecTools' sophisticated reporting, analytics and machine learning capabilities.

Thanks to advances in technology and regulations, the energy market has quickly moved from experimenting with pilot projects to large scale deployment of drone solutions. Across distribution lines, transmission lines, solar panels, wind turbines, oil and gas and utility infrastructure, and emergency response – energy presents a current global market opportunity of $9.7 billion.

Through investments and strategic business partnerships, PrecisionHawk continues to drive innovation with its technology solutions and remains the world's most well-capitalized commercial drone company. http://uasweekly.com/2018/09/05/precisionhawk-acquires-both-hazon-inc-and-inspectools-inc/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_09_05&utm_term=2018-09-05

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Self-piloting Drone Ambulance Concept Nets $20,000 FAI Prize September 5, 2018 News

Vincenzo Navanteri has been awarded the $20,000 Prince Alvaro de Orleans-Borbon Grant at the 2nd annual FAI International Drone Conference and Expo in Lausanne, Switzerland. Navanteri's idea of a self-piloting drone ambulance that could carry a single injured passenger at speeds of up to 69 mi/h for distances of up to 93 mi certainly fit the theme of this year's award, "Drones for Humanity."

Capable of reaching altitudes of 3,280 ft carrying up to 265 lb, the autonomous aero ambulance would boast eight electric-driven propellers, whose batteries would be powered by two gas-driven micro-turbines – each of which would have its own high-speed generator and independent gas storage.

The drone would autonomously ferry passengers to a destination set by GPS coordinates, with an oxygen supply and equipment onboard to monitor the passenger en route. The passenger could also be monitored remotely by human doctors via the drone's onboard cameras and communication system.

The $20,000 prize will help Navanteri and his Italian team at engineering company Proger to further develop the self-piloting drone ambulance concept.
http://uasweekly.com/2018/09/05/self-piloting-drone-ambulance-concept-nets-20000-fai-prize/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_09_05&utm_term=2018-09-05

7Sep18

Bboy dancer creates "smallest electric VTOL flying car!" September 5, 2018 Thomas Luna

Bboy dancer, gymnast, inline filmmaker, innovator and self-taught drone car inventor Kyxz Mendiola completed his first open field test flight earlier this month using Koncepto Millenya, a one-man electric vertical take-off and landing aircraft. Mendiola called Koncepto Millenya the "Philippines first flying car" in a Facebook post, and footage of the successful test flight can be seen through

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a video he uploaded on his YouTube channel.

It is sort of like a flying car that uses drone or multi-copter technology to fly," said Mendiola in a Philippine TV news show called Kapuso Mo. "It's like a drone car."

The VTOL aircraft has a flight time rated up to 15 minutes, and its frame is built with aluminum and carbon fiber. The battery-operated VTOL aircraft takes 2.5 hours to charge, and it is currently designed to carry a payload or a pilot up to 220 pounds.

Koncepto Millenya's 16 motor and battery redundancy system is built to optimize safety.
https://www.wetalkuav.com/bboy-dancer-creates-smallest-electric-vtol-flying-car/?utm_source=WeTalkUAV&utm_campaign=d5abc72284-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_1d410cb84d-d5abc72284-83642867

FAA Chief: Drones Are the Next Internet Mark Huber September 6, 2018, 6:58 PM

"Drones are going to do for aviation what the internet did for information," acting FAA Administrator Dan Elwell said yesterday and called on the industry to work with the FAA to fully integrate them into the National Airspace System.

Giving the keynote address at the InterDrone conference in Las Vegas, Elwell said it is up to industry to not just make a business case for UAS operations but also a safety case, noting that public and law enforcement have legitimate safety concerns. "The public has very real and justified questions about these aircraft. And their concerns can't just be swept under the rug. If we want this technology to take hold, we've got to take these questions head on," he said. "Everyone's interested in drone operations at night and over people. But we need to address the concerns that our national security and law enforcement partners have first."

Elwell again took issue with the lax regulation of recreational drones compared to commercial operations. "Until we can set remote ID requirements that will be universally applied to every drone, until we can make sure everyone is following the same rules inside the system, full integration just isn't possible," he said. "The fact is that a lot of safety problems require

technological solutions. And that means we need buy-in from all of you. The innovators. The inventors. The out-of-the-box thinkers."

He said the FAA is ready to move now and to move quickly to enable the drone industry to grow with initiatives including the current UAS integration pilot program. "The FAA has spent decades working with airlines, manufacturers, and countless others to get where we are now. We're ready to use everything we've learned so that the drone industry can reach its full potential as quickly as possible," Elwell said. "We're building flexible, responsive regulatory processes that can keep up with all your creativity while ensuring safety isn't compromised."
https://www.ainonline.com/aviation-news/aerospace/2018-09-06/faa-chief-drones-are-next-internet

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