



UAS and SmallSat Weekly News

Contents

- 2 Drone Pilot Wins Potentially Landmark Lawsuit**
- 2 Knowledge Base Presented By SLANTRANGE “Using Agriculture Drones”**
- 3 Xcel Energy using drones to inspect lines**
- 4 How to regulate drones? Newport prefers education over a new law**
- 4 Rose State College and University of Oklahoma Awarded Grant to Develop Drone Program**
- 5 This high-tech surveillance system can detect and take down intruding drones**
- 5 Drone Research Project Could Save Norway’s Salmon Population**
- 6 Drones could swoop in with natural disaster aid; tests launched from Crisfield**
- 7 Drone adds modern twist to an age-old fishing method for fourth generation Eden fisherman**
- 8 Drone hit Canadian airliner**
- 8 General Atomics ramping cubesat production, muses railgun smallsat launcher**
- 9 Surge in drone safety incidents prompts ‘emergency’ action at FAA**
- 10 MQ-9 UAS Used to Support Fire Fighting Efforts in Northern California**
- 10 National Science Foundation Funds UAS Work on Hurricane Response**
- 11 Firms developing disaster zone-mapping drones**
- 11 Drones take bigger role in management of global power networks**
- 12 Plans for Griffiss to Syracuse drone corridor buzz forward**
- 13 California man cited for flying drone over airport, impeding firefighters**
- 13 DJI Opens Its First Drone Arena in Japan The Tokyo DJI Arena**
- 14 E-Commerce Delivery Pilot Project Pairs Vans with Drones**
- 14 More police departments and other first-responders are using drones**
- 15 Daedalus Drone Services Awarded Airspace Waiver for Commercial Operations in Boston’s Restricted Airspace**
- 16 AEROVEL’S UNMANNED FLEXROTOR SETS VTOL ENDURANCE RECORD**
- 17 Cops in Dubai are getting real, actual hoverbikes, and they look amazing**
- 17 LAPD wins OK to test drones despite privacy concerns**
- 18 Approved to Give Commercial Drone Operators Instant Access to Controlled Airspace with LAANC**
- 18 DJI’s AeroScope tech identifies and tracks drones in flight**
- 19 D R O N E B O O T C A M P**
- 20 CNN Receives Part 107 Waiver for Operations Over People**
- 20 Boeing Invests in Near Earth Autonomy to Support Unmanned Tech Devt**
- 21 The rocket company that aims to undercut SpaceX on cost will launch 3 missions from Virginia in 2018**



UAS and SmallSat Weekly News

14Oct17

Drone Pilot Wins Potentially Landmark Lawsuit Alex Cooke September 21, 2017 [via sUAS News]

In what could be a seminal case for drone operators in the United States, a Massachusetts man has won a lawsuit that challenged the legality of a local ordinance that restricted the usage of drones and required a registration fee, both beyond the level already set forth by the FAA.



Michael Singer, a Harvard Professor, filed a suit against the city of Newton, Massachusetts for a drone ordinance that required operators to register with the city clerk for \$10 and imposed operational restrictions beyond those mandated by the FAA, namely disallowing an operator to fly over private or public property below an altitude of 400 feet (the silly thing being that drone operators can't operate *above* 400 feet per federal law) without the permission of the property owner or the city, respectively. A federal district court sided with Singer, citing that the **ordinance was in conflict with preexisting federal law** and therefore not lawful. This could be a landmark ruling, as it sets a precedent for the legality of state and local legislation that restricts drone usage beyond the rules set forth by federal law, an issue that has arisen in numerous cities, prompting outcry from operators. Removing these varying local ordinances could streamline drone work, as operators will only need to be aware of and adhere to one set of laws, namely the federal set. <https://fstoppers.com/drone/drone-pilot-wins-potentially-landmark-lawsuit-196958>

Knowledge Base Presented By SLANTRANGE "Using Agriculture Drones" October 13, 2017

Keeping a farm up to date with the latest technology is both time-consuming and expensive. You have to invest both money to purchase the tools and time to learn how to use them on your farm. Many farmers shy away from updating unless there is proof they will recoup their investment within a reasonable timeframe and before the next technology jump happens.



With the proliferation of drone technology and the drop in price over the last several years, **aerial agronomy's cost of investment versus return is starting to turn over**. Alex Petersen, owner of [On Target Imaging](#), has been watching aerial agronomy and decided that this was the year he would



UAS and SmallSat Weekly News

start transitioning his farm fertility practices from traditional to precision agriculture, or as he coined it, from “Analog to Digital”. “Combining the cost savings of less fertilizer with higher yields, we’re looking at an increased profit estimate of \$35/acre or a total of \$17,500 across 500 acres of corn.”

In one growing season, we estimate that we will come out positive on our investment in implementing a “base-plus” variable rate nitrogen program. The hard proof will come during harvest in October when we get the yield and revenue numbers, but we are confident we made the right decision. The use of agriculture drones and remote sensing in precision agriculture allowed us to apply the 4R’s (right source, right rate, right time, and right place) of fertilizer on a micro level and achieve higher efficiency farming. With SLANTRANGE and 360 SoilScan™ we’ve opened up the ability to manage fertilizer by spending our money a little bit at a time during the growing season versus all up front and are converting efficiency into dollars.

http://uasweekly.com/2017/10/13/knowledge-base-presented-slantrange-using-agriculture-drones/?utm_medium=push_notification&utm_source=rss&utm_campaign=rss_pushcrew

Xcel Energy using drones to inspect lines Heidi Wigdahl, KARE *October 12, 2017*



CHASKA, Minn. -- Xcel Energy is using drones to inspect transmission lines in Minnesota, part of a larger effort with the Federal Aviation Administration (FAA).

The **first-of-its-kind partnership** was announced earlier this year. Xcel Energy is using drones to inspect more than 20,000 miles of transmission lines in 10 states. The Minneapolis-based company plans on inspecting approximately 670 miles of transmission lines in Minnesota with drones this year. This research will help FAA when shaping future policies for safe and routine beyond visual-line-of-sight operations to inspect the electrical grid.

Xcel Energy also inspects transmission lines from the ground, as well as helicopter. The drone they demonstrated Thursday can cover about 50 miles a day--similar to a helicopter. However, drones can inspect hard to reach sites. They're able to gather high resolution photos, up close. Long said these **drones allow for safer inspections while also minimizing the environmental impact.**

Since 2016, Xcel Energy has also been working on a research project with the state of North Dakota and the University of North Dakota to use drones to **assess storm damage** after severe weather events. <http://www.kare11.com/news/xcel-energy-using-drones-for-inspections/482907149>



UAS and SmallSat Weekly News

How to regulate drones? Newport prefers education over a new law Hillary

DavisContact Reporter



Licensed drone pilot John Barrett flies a drone in Laguna Beach, which recently wrote its own drone restrictions. Newport Beach, which does not have its own drone rules, is considering educating users about federal rules already in place. (File Photo)

Newport Beach wants to mount an educational campaign for people who fly drones.

The remote-controlled, camera-equipped aircraft are popular for seeing the city's coast with a bird's-eye view. But privacy, noise and safety concerns about the buzzing, hovering devices sent the topic before the City Council this week, starting a discussion on how to control drone use.

Kelsey Brewer, policy manager for the Assn. of California Cities - Orange County, offered the association as a resource to Newport leaders if they want to further tackle drones. Last year, the association, **in partnership with the FAA, developed a model drone ordinance** that has been adopted by nine Orange County cities along with towns in Texas, Tennessee and North Carolina, Brewer said. <http://www.latimes.com/socal/daily-pilot/news/tn-dpt-me-newport-drones-20171012-story.html>

Rose State College and University of Oklahoma Awarded Grant to Develop Drone Program

Rose State College and the University of Oklahoma have been awarded an **\$800,000** Advanced Technological Education grant from the National Science Foundation **for the development of Unmanned Aerial Systems curriculum**. Through this collaboration, the two institutions will work to develop an experiential learning based educational program at Rose State College that will train future workforce employees in the design, maintenance and use of UAS, more commonly known as "drones."

"This is a very exciting and important initiative for Oklahoma," noted Kelvin K. Droegemeier, Secretary of Science and Technology and Vice President for Research for the OU Norman campus. "Unmanned systems represent a key strategic area for economic development in Oklahoma, in both the civilian and military sectors, and ensuring the ready availability of a skilled workforce is critical to our competitiveness in this rapidly evolving industry."



UAS and SmallSat Weekly News

http://uasweekly.com/2017/10/13/rose-state-college-university-oklahoma-awarded-grant-develop-drone-program/?utm_medium=push_notification&utm_source=rss&utm_campaign=rss_pushcrew

This high-tech surveillance system can detect and take down intruding drones

Uptin Saiidi | @uptin



As the popularity of drones increases, so does the need for protection against unwanted aerial intrusion or careless operators. SkyDroner, made by Singapore-based security device developer TeleRadio, is a surveillance system designed to detect unwanted drones. Upon command, it can take control and land the unmanned aircraft. The system can prove useful in protecting events, ports, homes of public officials, prisons and critical infrastructure.



CNBC recently visited the company's research facilities in Johor Bahru, Malaysia, to see a demo of the technology. In some instances, an intruder drone can even be landed into a cage at a specific coordinate, where it would then be contained and prevented from relaunching.

But in many countries, **the act of taking over another drone** — even for defensive purposes — **is still considered hacking and thus, illegal.**

Quek said the demand to protect against intruders is far exceeding the pace in which regulation is taking place. TeleRadio said it's currently in discussions and testing its device with governments in Asia and the Middle East as demand for anti-drone systems increases.

The SkyDroner costs less than \$75,000, but the price will vary depending on the size and quantity of a contract. <https://www.cnbc.com/2017/10/13/this-high-tech-surveillance-system-can-detect-and-take-down-intruding-drones.html>

Drone Research Project Could Save Norway's Salmon Population Jason

Reagan: October 11, 2017



Something fishy is going on in Norway, and drones could make things even fishier, in a good way. Norwegian research conglomerate [Sintef](#) announced a project to deploy UAS to optimize aquaculture in regional waters – especially for the



UAS and SmallSat Weekly News

beleaguered salmon population decimated by sea lice (ugh!).

Sintef is offering a fresh solution: an [underwater inspection drone](#) that can operate autonomously across an area equivalent to a soccer field. Using a multi-variant sensor array, the drone can gather data concerning fish health and population density, transmitting 3D visualizations back to home base.

Earlier this year, Sintef [launched an aerial drone](#) project to get a bird's eye on fish behavior in a non-intrusive manner. Researcher Eirik Svendsen explains:

"The use of drones, and 'flying eyes' (cameras attached to remote-controlled helium balloons) opens the way for new opportunities linked to the documentation and inspection of both facilities and marine operation. For example, we were able to see how the fish behaved when the nets were drawn in."

For Norway, salmon production is key — the largest breeding sites produce around 15,000 tons of salmon per year. Rundtop points out that without drone tech, "key variables such as feed mode and feed play, the number of fish, average weight and growth, sleep state, and health condition are either inadequate control or the accuracy and level of detail in both room and time are not satisfactory." <https://dronelife.com/2017/10/11/drone-research-project-save-norways-salmon-population/>

Drones could swoop in with natural disaster aid; tests launched from Crisfield

Susan Parker, slparker@delmarvanow.com Oct. 12, 2017

The mesh network radio system the men are hoping to test — on behalf of the Naval Air Center Aircraft Division — would act as a [communications relay](#) to allow the pilots to "talk" to remote devices at the destination point, sort of like ethernet, Henderson said.

Funding for the team's basic operating costs are provided by the University of Maryland, while other funding comes from other organizations and agencies, like NACAD, the agency they are contracted with to test the mesh network radio system.



Jacob Moschler, left, works with David Stanton on the Talon 240G aircraft at Crisfield Municipal Airport on Tuesday, Oct. 10. (Photo: Susan Parker)

"The Talon 450G is a workhorse and equipped with onboard GPS," Henderson said. "It can fly eight hours uninterrupted. It



UAS and SmallSat Weekly News

could circle an island like Puerto Rico and serve as a temporary cell 'tower,' allowing people there to use their cellphones and communicate with the outside world."

Moschler talked about partnerships the project has forged, with NOAA, NASA, the National Science Foundation and industry partners like power inspections. <http://www.delmarvanow.com/story/news/local/maryland/2017/10/12/drones-can-help-farmers-first-responders-and-all-us/752062001/>

16Oct17

Drone adds modern twist to an age-old fishing method for fourth generation

Eden fisherman Vanessa Milton ABC News

Roger Fourter's family have been fishing the waters of the NSW (New South Wales) far south coast for over 150 years. After a long career as a commercial fisherman, Mr Fourter has now returned to his childhood passion catching salmon and mullet off the beaches of Twofold Bay and the Eden coast using the traditional beach seine method. He shoots a 300-metre-long net from a 16-foot rowboat around a patch of schooling fish.



One piece of technology Mr Fourter's great grandfather would not recognise is **the drone he uses to spot schooling fish from the air.**

"With beach fishing, you don't take the boat out unless you can see fish. We'd spend a lot of time sitting on high headlands and waiting. When the drones came out and I saw what they could do, with a live feed back to a screen, I thought they'd be great for spotting fish. And they are. **Fantastic.**"



Eden filmmaker Peter Whiter filmed Mr Fourter over the course of a fishing season to capture the process of spotting and catching a school of fish, both from the ground and from the air.

After four generations, Mr Fourter may be the last in his family to fish using the traditional beach seine technique.

<http://www.abc.net.au/news/rural/2017-10-16/drone-adds-modern-twist-for-150-year-eden-fishing-family/9052964>



UAS and SmallSat Weekly News

Drone hit Canadian airliner: minister AFP

A Canadian passenger plane landed safely after it was hit by a drone in the **first case of its kind** in the country, a cabinet minister said Sunday. The Canadian incident happened last Thursday when a drone collided with a domestic Skyjet plane approaching Jean-Lesage International Airport in Quebec City, Transport Minister Marc Garneau said in a statement.

"This is the first time a drone has hit a commercial aircraft in Canada and I am extremely relieved that the aircraft only sustained minor damage and was able to land safely," said the minister, a former astronaut.

The aircraft, carrying six passengers and two crew, was struck on its right wing at an altitude of about 500 yards (450 meters) and roughly two miles (three kilometers) from the airport, according to Le Journal de Quebec newspaper. This year there have been 131 drone incidents "of aviation safety concern."

The International Air Transport Association (IATA), which sets global standards for the aviation industry, counted 856 cases worldwide between January 2013 and August 2015 of a drone getting too close to a plane for comfort. <https://www.msn.com/en-us/news/world/drone-hit-canadian-airliner-minister/ar-AAtuB1r>

General Atomics ramping cubesat production, muses railgun smallsat launcher Caleb Henry — October 12, 2017



General Atomics is building 3U cubesats for defense customers today, and is marking larger 6U spacecraft. The company is targeting smallsats up to 500 kilograms. Credit: General Atomics

WASHINGTON — General Atomics is better known for building Predator combat drones and mining uranium than building spacecraft, but that could change as the company develops an interest in building defense-focused cubesats. Also in the realm of possibility: using expertise from building railguns to design a large, **electromagnetic cannon as a means to orbit small satellites.**

Nick Bucci, vice president of missile defense and space systems for General Atomic's Electromagnetic Systems Group, said the company has built 11 cubesats for the U.S. Army over the past seven years.



UAS and SmallSat Weekly News

Last February, General Atomics acquired Huntsville, Alabama-based Miltec, gaining a foothold in small satellite production, along with more expertise in hypersonic vehicles. General Atomics has been building 3U cubesats, but with Miltec in hand, wants to build 6U cubesats, and potentially scale up to 500-kilogram small satellites. <http://spacenews.com/general-atomics-ramping-cubesat-production-muses-railgun-smallsat-launcher/>

Surge in drone safety incidents prompts 'emergency' action at FAA Originally published October 14, 2017 Alan Levin *Bloomberg News*

There is so much pent-up demand to obtain special permission to fly drones in restricted airspace that the Federal Aviation Administration says **it can't keep up**. The FAA says drone users are flying without approval because of the delays.

"The time necessary to process these requests has resulted in an increase in safety reports due to noncompliant operations," the agency said in its notice.

Drone safety incidents are up compared to last year, according to the FAA's notice. Reports of drones flying improperly or getting too close to other aircraft are averaging 250 a month, this year, **up by more than 50 percent** from last year. They averaged 159 per month from February through September 2016, according to the FAA.

The FAA said it wants to sidestep normal regulatory requirements so it can more quickly adopt an automated system for approving low-level drone flights in restricted areas. The agency has created what it calls the Low Altitude Authorization and Notification Capability, which takes **five minutes for approval** via computer instead of months.

Since adopting new regulations expanding drone flights last year, the FAA has received 20,566 requests for special flight authorizations. The agency has more than 6,000 pending requests because it can take 60 to 90 days to process them, it said in the notice. That could swell to **25,000 pending requests within the next six months**, the FAA predicted.

<https://www.seattletimes.com/business/surge-in-drone-safety-incident-prompts-emergency-action-at-faa/>

MQ-9 UAS Used to Support Fire Fighting Efforts in Northern California

The California Air National Guard's 163d Attack Wing operating out of March Air Reserve Base is using MQ-9 Unmanned Aircraft Systems (UAS), with full-motion video (optical and infra-red) and ground imaging Synthetic Aperture Radar (SAR) capability, in support of CAL FIRE's



UAS and SmallSat Weekly News

firefighting efforts in Northern California. SAR is able to see clearly through both clouds and smoke.

"The 163d Attack Wing supports citizens during the fires by operating two missions under approval from the Secretary of Defense and the Federal Aviation Administration," said Brigadier General Dana A. Hessheimer. "The two missions are to help fire crews assess fire perimeters and to identify structures that have been lost. Through the efforts of our response team, 77,000 acres have been mapped and more than 1,300 structures have been identified."

http://uasweekly.com/2017/10/16/mq-9-uas-used-support-fire-fighting-efforts-northern-california/?utm_medium=push_notification&utm_source=rss&utm_campaign=rss_pushcrew

National Science Foundation Funds UAS Work on Hurricane Response Betsy Lillian

October 13, 2017



To help scientists understand how disasters such as Hurricanes Irma, Maria and Harvey happen and how we can best respond, the National Science Foundation (NSF) has [awarded](#) 59 new grants totaling \$5.3 million to various projects, including an initiative involving unmanned aircraft systems (UAS).

Robin Murphy of Texas A&M University and David Merrick of Florida State University are leading a hurricane response project that uses drones. The scientists are collecting data from UAS flights over hurricane-affected locations – 119 flights at Hurricane Harvey sites and 247 flights at Hurricane Irma sites.

The UAVs are being deployed in Fort Bend County, Texas, and Putnam and Collier counties, Florida, to support disaster response efforts. The project involves a range of UAS platforms flying at various altitudes and for different missions, says NSF. Video, still imagery and photogrammetry are part of the project, which involves flights before the hurricanes, during response phases and **through restoration phases**. <https://unmanned-aerial.com/national-science-foundation-funds-uas-work-hurricane-response>

17Oct17

Firms developing disaster zone-mapping drones 14 October 2017



Tiny drone Snake Eyes is equipped with sensors to detect harmful substances and create a 3D map of a scene

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



UAS and SmallSat Weekly News

Emergency teams could soon be equipped with cutting-edge drones and robots to search hazardous scenes before they put boots on the ground.

Four companies have been awarded over £1.6 million to develop technology to hunt for casualties, detect dangerous substances and map disaster zones.

Projects to benefit from the Innovation Fund include a drone small enough to fit through a letterbox and a robot with its own neural network for deployment on decontamination missions.

One concept is Snake Eyes - a tiny drone equipped with sensors to detect harmful substances and create a 3D map of a scene. Horiba-MIRA, in Nuneaton, Warwickshire, was awarded funding to develop its robot to hunt for casualties and harmful substances on decontamination missions. The final winner was SceneSEARCH from researchers at the Loughborough University Centre for Autonomous Systems. The pocket-sized drone, OWL 4, is fitted with a chemical sensor and directed by a search algorithm to find the location and the release rate of the hazard.

Defence Secretary Sir Michael Fallon said: "With intensifying threats abroad and the risk of accidents at home, we need the very latest technology to respond to any incident.

<http://www.nwemail.co.uk/news/national/article/Firms-developing-disaster-zone-mapping-drones-e128e631-64f6-4eca-8416-828c855df09c-ds>

Drones take bigger role in management of global power networks Sarmad Khan

October 15, 2017

PwC says market for unmanned aerial vehicles-powered solutions is now worth \$9.4bn a year



A drone at 2017 China international security equipment technology and product expo in Beijing, China. Such machines are being increasingly used in the power industry. Wu Hong/ EPA

The growth of power transmission networks across continents has given rise to the **global market** in drone-powered solutions for the power and utilities industries, which, according to the consultancy PwC, **is worth as much as US\$9.46 billion a year.**



UAS and SmallSat Weekly News

These networks globally are forecast to increase to 6.8 million circuit kilometres by the turn of this decade, a 15 per cent rise from the 2016 level, as demand in emerging markets such as China and India rises. A circuit kilometre is 1km of electrical transmission or distribution circuitry including all necessary conductors, insulators and supporting structures required to provide a complete circuit.

A flame-throwing drone used to clear rubbish from power lines is among the extreme examples of innovative uses for technology highlighted in the PwC report titled *Clarity from Above*.

The production of energy is being reshaped by an increase in power generation through renewable sources and regulators across the world are increasingly concerned about reliability, offering incentives to reduce outages and imposing penalties for downtime, according to PwC.

Every year the sector loses \$169bn due to network failures and forced shutdowns, which is one of the reasons why creative uses of unmanned aerial vehicles are disrupting the way companies build, operate and maintain their networks. <https://www.thenational.ae/business/drones-take-bigger-role-in-management-of-global-power-networks-1.667405>

Plans for Griffiss to Syracuse drone corridor buzz forward Oct 16, 2017

The creation of a drone corridor beyond around Griffiss International Airport is moving forward.

NUAIR Alliance, manager of the drone test site at Griffiss, has begun the selection process of vendors for the design and installation of the next phase in the development of its **beyond visual line of sight unmanned traffic management test corridor**.

This second stage will complete the corridor that will enable testing of drones, also called unmanned aerial systems, and sensors in the airspace between Rome and Syracuse.

The corridor now consists of an approximate 5-mile circle around Griffiss, in which special sensors and radars are able to detect small drones flying at low altitudes, something traditional radars around airports cannot do.

Griffiss is one of seven sites designated by the Federal Aviation Administration as a test location for drones so they can be safely operated in the U.S. airspace alongside piloted aircraft.

The approximate 50-mile corridor will enable companies to test both unmanned aerial systems and unmanned traffic technologies in real world settings, generating data that will inform and advance the commercial use of drones, according to Larry Brinker, interim president and



UAS and SmallSat Weekly News

CEO of NUAIR. <http://romesentinel.com/oneida/plans-for-griffiss-to-syracuse-drone-corridor-buzz-forward/QBqqjp!c7EKz4nZchFVSVc5kh7fxA/>

California man cited for flying drone over airport, impeding firefighters Benny

Evangelista October 16, 2017



The Federal Aviation Administration on Monday said it was investigating a second incident involving a drone illegally flying into North Bay fire areas, a day after police cited a drone operator for causing firefighters to briefly stop flying in and out of the Petaluma airport.

FAA spokesman Ian Gregor said the second, previously unreported incident took place in Santa Rosa early last week. The clashes with drones come as the growing popularity of the consumer-flown devices has [increased the number](#) of drone sightings by aircraft pilots in the Bay Area.

<http://www.sfgate.com/business/article/California-man-cited-for-flying-drone-over-12282383.php#photo-13859071>

DJI Opens Its First Drone Arena in Japan The Tokyo DJI Arena

DJI, the world leader in civilian drones and aerial imaging technology, will open its first Japan DJI Arena in Tokyo, "DJI Arena By JDRONE Tokyo," on Saturday, October 21. The 535-square-meter arena will not only consist of a flying area, but also feature a retail store and offer technical support. The Tokyo DJI Arena will be managed and operated by Authorized Dealer Japan Circuit in partnership with DJI Japan.



The flying area is equipped with safety nets and an adjustable circuit for those who want to test their skills, while the retail space will showcase DJI's full range of consumer, professional, and enterprise products. Customers can also purchase all the latest DJI drones at the Tokyo DJI Arena including the Spark mini drone that can be controlled by hand gestures, the compact and foldable Mavic Pro Platinum, and the Phantom 4 Pro Obsidian, the intelligent and powerful flying camera.

"As interest around our aerial technology continues to grow, the DJI Arena concept is a new way for us to engage not just hobbyists but also those considering this technology for their work or just for the thrill of flying," said Moon Tae-Hyun, DJI's Director of Brand Management and Operations. <http://uasweekly.com/2017/10/17/dji-opens-first-drone-arena-japan-tokyo-dji-arena/>



UAS and SmallSat Weekly News

E-Commerce Delivery Pilot Project Pairs Vans with Drones 13 Oct 2017 | Caroline Rees



[Mercedes-Benz Vans](#) has announced that, in conjunction with US drone systems developer [Matternet](#) and Swiss online marketplace [siroop](#), it has started a pilot project in Zurich to test an efficient van and drone-based system for on-demand delivery of e-commerce goods. The pilot project, which has begun its first trials, represents a significant milestone for autonomous aerial systems: **it is the first time** that extensive beyond-line-of sight drone operations with the use of vans as landing platforms are taking place **in a major urban area** to test a fully-automated e-commerce drone network.

During the course of the three-week pilot project, customers will be able to order selected products from online marketplace siroop that are suitable for transport by a Matternet drone, such as consumer electronics and other e-commerce items weighing up to two kilograms. Delivery will be made on the same day. The drones are loaded directly at the merchant and fly to one of two Mercedes-Benz Vito vans equipped with a precision landing technology. The van stops at one of four pre-defined points, called "rendezvous points", within the city of Zurich, where the van driver takes possession of the product and delivers it to the customer, while the drone returns to the retailer. The entire logistics chain from order receipt to delivery to the customer will be timed and compared against conventional delivery methods to gain insights into the efficiency of the solution. <http://www.unmannedsystemstechnology.com/2017/10/e-commerce-delivery-pilot-project-pairs-vans-drones/>

More police departments and other first-responders are using drones Oct 12th 2017 | LOS ANGELES

That presents cities with a choice between safety and privacy



IN JUNE a search-and-rescue team in Colorado used a drone to spot lost hikers in a pine forest, shaving hours off the time it would have taken to find the hikers using dogs, and thousands of dollars off the cost of doing so with a helicopter. In August police officers in Maine used a drone to snap 81 photos of the aftermath of a collision between a pickup truck and a blueberry lorry. The process took 14 minutes, instead of the hours officers said would usually have been required. Last month, police officers in Illinois used a drone to fly a mobile phone into the hands of a disgruntled man who shot at them when they tried to evict him from a



UAS and SmallSat Weekly News

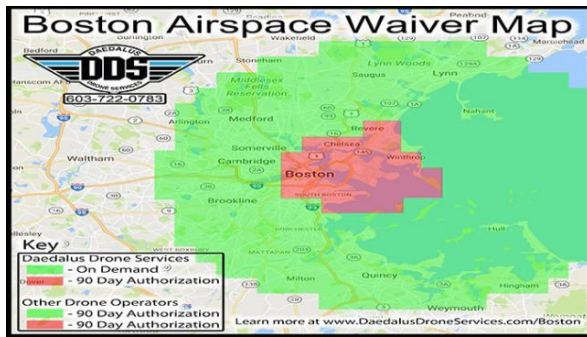
foreclosed home. After hours of negotiations via the drone-delivered phone, they coaxed him into surrendering.

Despite such stories, many people are skeptical about the merits of law-enforcement drones. On September 28th Los Angeles’s Sherriff Civilian Oversight Commission, a body created a year ago by Los Angeles County officials to increase the accountability of its Sheriff’s Department, asked the department permanently to ground its drone, because of worries about privacy and safety.

Anxiety about drones is not confined to southern California: Seattle cancelled its drone program in 2013 after residents and privacy activists protested, fearful of mass surveillance. A survey conducted in January by Rasmussen Reports, a polling group, found that 39% of American adults opposed the use of police drones compared with 36% who favor them.

<https://www.economist.com/news/united-states/21730243-presents-cities-choice-between-safety-and-privacy-more-police-departments-and>

Daedalus Drone Services Awarded Airspace Waiver for Commercial Operations in Boston’s Restricted Airspace October 17, 2017



After months of review, the Federal Aviation Administration (FAA) recently awarded Daedalus Drone Services with **unprecedented approval to fly in and around Boston**. With the waiver, Daedalus Drone Services now offers on-demand commercial drone services throughout the greater Boston area. Without this first of its kind waiver, it can take more than 90 days to receive

approval for a single commercial drone operation in Boston’s restricted airspace, which significantly limits an organizations ability to utilize drone technology. Drone services are an invaluable resource to many industries including; news/video production, engineering/construction, insurance/real estate and marketing. Daedalus Drone Services has years of experience serving these industries and will utilize this waiver to do so throughout the greater Boston area.

Daedalus Drone Services filed a special petition with the FAA requesting blanket permission to offer on-demand commercial drone services in Boston’s restricted airspace. In support of their decision, the FAA considered Daedalus Drone Services’ perfect safety record,



UAS and SmallSat Weekly News

comprehensive safety management and flight operations manuals, training programs, and years of experience offering commercial drone services across the country. The FAA concluded that the operations and procedures proposed by Daedalus Drone Services met or exceeded the equivalent level of safety necessary. **This unprecedented waiver** allows Daedalus

Drone Services to bring widespread commercial drone services to the greater Boston area.

http://uasweekly.com/2017/10/17/daedalus-drone-services-awarded-unprecedented-air-space-waiver-commercial-operations-bostons-restricted-air-space/?utm_medium=push_notification&utm_source=rss&utm_campaign=rss_pushcrew

AEROVEL'S UNMANNED FLEXROTOR SETS VTOL ENDURANCE RECORD AUVSI NEWS

OCT 16, 2017

Aerovel has announced that its unmanned Flexrotor, named Actaea, **set a VTOL endurance record**, as it flew just over 32 hours.



During its flight, Actaea, which is a unique miniature tailsitter, transitioned from hover to wing-borne flight, and conducted its journey through a “showery day, a blustery night, and then another day in the breezy and unsettled air behind a cold front.”

The UAS transitioned back to hover as dusk fell, and “dropped gently down onto a 12-foot square helideck underway at 8 kt.”

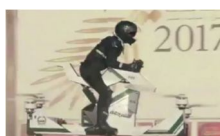
The UAS flew for a total of **32 hours and eight minutes**, and had more than three hours’ worth of gasoline left in its tank upon landing. When it took off, the UAS had 7.5 kg of fuel onboard. “In fact, as far as we know, no VTOL aircraft has even come close in either time or distance.”

Some of its applications thus far include guiding a commercial seiner to yellowfin in the midst of the equatorial pacific, as well as a giant anchor-handler to Arctic worksites through the icy labyrinth of the Beaufort. <http://www.auvsi.org/industry-news/aerovels-unmanned-flexrotor-sets-vtol-endurance-record>

18Oct17

Cops in Dubai are getting real, actual hoverbikes, and they look amazing Mike

Wehner October 17th, 2017 at 3:12 PM



Back in the 1950s, everyone thought that by the year 2000 we’d be jetting around in flying cars. Nearly two decades late, we’re finally seeing the very

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



UAS and SmallSat Weekly News

beginnings of the systems and technologies that could make that dream a reality, and the Dubai police force is going to be one of the first to experience it. At the Gulf Information Technology Exposition, [an incredibly cool hoverbike](#) stole the show, and it could become the ultimate tool for first responders.

The bike, built by a Russian company called Hoversurf, is like a rideable drone, complete with four propellers that give it stable lift and allow it to perform some basic, but impressive maneuvers with a fully-gearred pilot on board.

On the upside, the bike is capable of a very respectable top speed of 43 miles per hour, and considering it's not constrained to pavement, it can head to its destination in a straight line rather than navigating roadways. Unfortunately, it has a rather short 25 minutes of flight time before needing to recharge, and on top of that, its altitude is limited to 16 feet.

This isn't the kind of vehicle that will be chasing down criminals on the highway or even patrolling from on high, but it could be extremely useful as a tool for first responders who need to access difficult-to-reach areas. It can cruise over packed city streets much faster than a police car could pass through them, and could give cops a big advantage if ground-bound bad guys find themselves cornered. <http://bgr.com/2017/10/17/hoverbike-cops-dubai-drones-video/>

LAPD wins OK to test drones despite privacy concerns *The Associated Press* OCTOBER 17, 2017 5:43 PM LOS ANGELES

Despite privacy concerns, police received permission Tuesday to fly drone aircraft under a one-year pilot program that limits their use to dangerous situations and natural disasters.

Deployment policy limits the use of the drones during the pilot program to "dangerous, high-risk tactical situations" or for providing observation during catastrophes. Examples might include hunting for heavily armed suspects, hostage situations and search-and-rescue operations.

The limitations didn't mollify protesters who jeered as the commission took its vote and later gathered outside police headquarters, chanting "Drone-free LAPD! No drones L.A.!" Several were arrested after blocking traffic. <http://www.miamiherald.com/news/politics-government/national-politics/article179352516.html>



UAS and SmallSat Weekly News

Approved to Give Commercial Drone Operators Instant Access to Controlled Airspace with LAANC By [Press](#) 17 October 2017



Skyward, a Verizon company has been approved to give commercial drone operators instant access to controlled airspace with the Low Altitude Authorization and Notification Capability (LAANC) services from the Federal Aviation Administration (FAA). The program will roll out this fall at Cincinnati International Airport (CVG), Reno (RNO), San Jose (SJC), and Lincoln (LNK) among others.

LAANC will enable businesses to access airspace that previously required the submission of a manual request for authorization, and it will automate the approval process, **reducing the wait time from months to seconds.**

“Based on customer feedback, we know most of their jobs are in controlled airspace and getting access to fly in these areas is one of their largest business pain points,” said Mariah Scott, Co-President of Skyward. “Operators have had to wait 60-90 days to receive authorization under the existing system. Now, with Skyward and LAANC, enterprises can get approval to fly in just two clicks.

As one of 12 members of the LAANC working group, Skyward helped to develop this capability as an essential method to help serve more customers in new areas efficiently and safely. To learn more about instant access to controlled airspace with Skyward, visit <http://go.skyward.io/laanc-webinar.html> to register for a free webinar on November 9 at 1 p.m. ET. <https://www.suasnews.com/2017/10/skyward-approved-give-commercial-drone-operators-instant-access-controlled-airspace-laanc/>

DJI's AeroScope tech identifies and tracks drones in flight Nick Lavars

DJI has moved to allay some of the privacy concerns surrounding drones, introducing a new feature designed to identify its unmanned aircraft as they buzz about overhead. Dubbed AeroScope, the technology broadcasts information such as serial numbers and altitude to help authorities monitor the whereabouts of individual airborne drones.

AeroScope uses the existing communications link between the remote controller and the drone to pull basic telemetry data, meaning things like the location, altitude, speed and direction of the drone, along with its serial or registration number.



UAS and SmallSat Weekly News



Equipped with a special AeroScope receiver, police, security agencies and aviation authorities can then make use of that information to **keep tabs on unmanned drones in the interests of public safety**. The technology has been in place at two international airports since April and DJI also demonstrated it last week in Brussels, where the company says it was shown to sense a drone the moment it was turned on and plot its location on a map, along with its registration number. AeroScope will work with all current DJI drones and because it uses the existing communications link, it does not require any new hardware or modifications. <https://newatlas.com/dji-aeroscope-drone-tracking-safety/51799/>

19Oct17

DRONE BOOTCAMP December 1-3, 2017



Learning how to operate a drone is not a simple prospect; with so many laws, rules and regulations to navigate, and so many different training providers, it can be confusing and intimidating.

Whether you are a seasoned hobbyist or someone interested in unmanned systems as a profession, this bootcamp is the perfect test lab to safely explore this ever-evolving technology.

This exciting **3-day hands-on bootcamp** will provide a comprehensive overview of:

- History of Unmanned Systems in Civil and Military Applications FAA rules and regulations according to the CFR Part 107
- FAA rules and regulations according to the CFR Part 107
- Practical application flying professional grade unmanned systems Overview of UAS growing career opportunities
- Overview of UAS growing career opportunities

The class will allow each participant to fly an unmanned system through hands-on training under the supervision of FAA licensed remote pilot(s).

REGISTER NOW TO MOVE AHEAD >> ODUBOOTCAMP.COM

Contact Dean Claud at rclaud@odu.edu, 757-683-4232 Registration deadline: November 28, 2017



UAS and SmallSat Weekly News

CNN Receives Part 107 Waiver for Operations Over People October 18, 2017 FAA & Drone Laws



CNN has received a first-of-its-kind Part 107 waiver from the Federal Aviation Administration (FAA) to fly a small unmanned aircraft system (UAS) over people. This approval **represents an industry milestone**, as this new waiver for the first time will enable real-world UAS operations over people. The waiver allows CNN to fly the Vantage Robotics Snap UAS in a diverse range of environments, including operations over open-air assemblies (crowds) of people, up to an altitude of 150 feet above ground level (AGL).

The FAA waiver authorizes CNN to operate the Snap UAS, a frangible, 1.37-pound aircraft with enclosed rotors that is made of deformable material, over people. "Vantage created the Snap for the purpose of safely capturing aerial video over people," said Tobin Fisher, CEO of Vantage Robotics. "We are pleased that Vantage was able to work with CNN to present and establish the safety case for the Snap to the FAA." <http://uasweekly.com/2017/10/18/cnn-receives-breakthrough-part-107-waiver-operations-people/>

20Oct17

Boeing Invests in Near Earth Autonomy to Support Unmanned Tech Devt Jane Edwardson: October 20, 2017 In: Industry News



Boeing has invested in [Near Earth Autonomy](#) to help the Pittsburgh, Pennsylvania-based company further develop autonomous platforms for aerial and ground vehicles.

Boeing [said Thursday](#) it made the investment through its ventures arm HorizonX and partnered with Near Earth Autonomy to explore new unmanned platforms for use in **urban mobility** and other emerging market applications.

Near Earth Autonomy, which spun off from Carnegie Mellon University's Robotics Institute, works with the Office of Naval Research to build an unmanned aerial cargo delivery system for the Marines. The company also collaborated with the [U.S. Army](#) in 2010 to facilitate an autonomous helicopter flight. <http://blog.executivebiz.com/2017/10/boeing-invests-in-near-earth-autonomy-to-support-unmanned-tech-devt/>



UAS and SmallSat Weekly News

The rocket company that aims to undercut SpaceX on cost will launch 3 missions from Virginia in 2018

- Rocket builder Vector will launch three orbital missions with Virginia Space.
- "We need to break the classic handcuffs on the costs of launching," Vector CEO Jim Cantrell told CNBC in an exclusive interview.
- Vector is targeting its first launch from Virginia for July.

MichaelSheetz @thesheetztweetz

<https://www.cnbc.com/video/2017/10/19/rocket-builder-vector-signs-deal-with-virginia-space.html>

Rocket company Vector will conduct three commercial missions from Virginia Space's Mid-Atlantic Regional Spaceport at NASA's Wallops launch center.

This is the first orbital contract with a spaceport for Vector, the next major step toward the company's goal of launching more than 100 times per year, chief executive Jim Cantrell told CNBC in an exclusive interview.

The Vector-R vehicle is a low-cost rocket intended to meet the growing demand from the microsatellite sector, which is [expected to become a \\$7.5 billion industry in five years](#). At less than \$3 million per launch, Vector is aiming for **a 20th the cost** of a SpaceX Falcon 9 rocket.

An additional advantage for Vector, Cantrell said, is its mobility. Vector requires minimal infrastructure to launch its rockets — as little as a concrete pad.



[Jim Cantrell @jamesncantrell](#)

Vector is targeting its first Wallops launch for July, with two or three more in the second half of the year. The contract includes an option for five more launches, a possibility Cantrell is optimistic about.

Dale Nash, CEO and executive director of Virginia Space, told CNBC that Cantrell's rapid cadence vision is possible from his spaceport. "It's entirely conceivable that, with the three separate launch locations on Wallops, **we could launch three rockets in one day**," Nash said. <https://www.cnbc.com/2017/10/19/vector-space-systems-signs-deal-with-virginia-space.html>