UAS and SmallSat Weekly News

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Paramedics in Canada Using Drones Approved for Flying BVLOS Juan Plaza January 29, 2018

After a six-day demonstration before federal officials last spring, the Renfrew County paramedic service – along with the Royal Canadian Mounted Police (RCMP), Ontario Provincial Police (OPP) and British Columbia-based drone supplier InDro Robotics – obtained permission to fly UAVs beyond visual line-of-sight (BVLOS) within a four-nautical-mile search area. The green light, granted in the summer, is unprecedented and game-changing.

In the months since obtaining the expanded federal permission, Renfrew paramedics have used their UAVs to scan rugged crash sites, locate people lost in the woods, and determine whether snowmobilers plummeted through ice or made it safely to shore. The need has not yet arisen, but the service is also capable of deploying a drone to deliver an automatic external defibrillator (AED) to someone in cardiac arrest. A similar effort is being carried out in Nevada by drone manufacturer Flirtey in partnership with ambulance company REMSA.

The Renfrew paramedics can also equip a drone with a personal flotation device and lower it to someone struggling in a body of water, similar to the rescue just carried out by an Australian UAV, or use it to throw a rope out to a person stuck on a treacherous stretch of ice to allow paramedics to then pull the person ashore. The rescue applications are endless.
https://www.expouav.com/news/latest/paramedics-canada-using-drones-can-now-fly-bvlos/?utm_source=informz&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter

Anywhere, Anytime: Wingtra Drones Map the Alps Miriam McNabbon: January 31, 2018

The WingtraOne is an unusual drone, both in looks and functionality. A VTOL (vertical takeoff and landing) design allows the WingtraOne to work in a wide variety of environments. Now xyHt reports that the Wingtra is being used to map the Alps.

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Swiss engineering firm Cavigelli Ingeniuere AG has been tasked with mapping Lumnezia, a Swiss Alpine valley, for the planning of a wind farm. The 20 wind turbines are to be built in an area inaccessible by roads, and previously unmapped.

Hiking in an hour to the site, engineers used the WingtraOne to handle mapping the large area constrained by "hilly terrain, high altitude, and quickly changing weather conditions in the mountains," says Adyasha Dash, a software engineer at Wingtra and author of the xyHt article.

The team used photogrammetry software from Pix4D to create a 3D model of the construction site, allowing visualization of planned roads and wind turbines. "The entire data collection workflow itself took a mere four hours—a process that could easily take days with traditional surveying methods," says Dash. https://dronelife.com/2018/01/31/anywhere-anytime-wingtra-drones-map-alps/

Wind Turbines and Power Lines: A Busy Week for Inspection Drones Jason Reagan April 20, 2017

In Europe, a business consortium is developing a new inspection system for wind turbines that could lead to a completely autonomous process.

EIT Digital, a partnership of more than 130 European corporations, start-ups, universities and research institutes, has launched Cloud4Drones, a platform that integrates a "centralized data harvesting platform, prototype hardware platform with on-board software to be deployed on the drone, and a mission control tool made of a collection of tools aiding the user to design missions and foresee them prior the operation."

According to a recent Deloitte report, drones are capable of inspecting 15 – 20 wind turbines per day and make a significant dent in the estimated $2-billion annual cost Europe spends currently on turbine inspections.

In the U.S., a team comprised of AeroVironment, Dominion Virginia Power, the Mid-Atlantic Aviation Partnership last week tested BVLOS powerline inspections using a satellite network and AeroVironment's Puma, a military-grade, fixed wing drone.
https://dronelife.com/2017/04/20/wind-turbines-and-power-lines-a-busy-week-for-inspection-drones/

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"Drone-Catching Drones" among high-tech security measures for Winter Olympics February 1, 2018 Feilidh Dwyer

Drones capable of firing Kevlar nets will be among extraordinary security precautions South Korean authorities are making in preparation for the Winter Olympics to be held later this month.

Security measures for Winter Olympics include:

- Specially modified drone-catching drones with the capacity to deploy nets over any suspicious flying vehicles.
- A highly advanced drone detection radar developed by the Korea Advanced Institute of Science & Technology (KAIST) will scan the skies for any unauthorised approaches form drones.
- Radio signal-jamming guns. If drones somehow make into restricted airspace, these weapons are to be fired to bring them down.
- Additional to net-deploying drones, special forces agents will be sent by helicopter to approach and shoot down rogue drones with shotguns.

In December, Reuters published footage of South Korean military conducting drills involving SWAT team members shooting down a bomb-laden drone that was traveling towards a bus full

Lithium-Metal Battery for Drones Coming to Market February 1, 2018 Audrey Zhang

A new startup headquartered in Massachusetts is looking to change the game when it comes to lithium-ion batteries for drones. SolidEnergy Systems claims to be the first firm to sell lithium-metal batteries commercially and some of the first applications for this technology is in drones. A lithium-metal battery half the size of a lithium-ion battery could hold twice the charge. Founder Qichao Hu claims that the battery can double a drone's flying radius and quadruple its flying area.

Currently SolidEnergy Systems is selling the lithium-metal batteries to drone makers who are specializing in bringing Internet access to rural areas. Founded in 2012, SolidEnergy Systems has raised $50 million to fund the development of its battery technology. SolidEnergy Systems biggest innovation is in replacing the graphite common to lithium-ion batteries with a lithium-metal foil. https://www.wetalkuav.com/lithium-metal-battery-drones-coming-market/

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Three amazing ways drones are helping the world February 3, 2018 Feilidh Dwyer

Drones are being used in unique and often ingenious ways to create a positive impact on the globe. Below we've highlighted several interesting examples.

Planting trees: While a famer or individual working at a frantic pace may be able to plant several thousand seedlings a day, a drone can do ten times that amount. In areas that have been deforested, companies are using drones to help bring the trees back. A troupe of drones flying at a low altitude fires nutrient-filled "seed pods" at high-speed, fast enough to penetrate the soil.

Disaster and humanitarian relief: They can help authorities analyze damage following natural disasters and spot survivors using technologies such as thermal imaging. In Africa, they've been used to deliver aid packages and medical supplies. During dramatic weather events they've been employed to monitor the progression of hurricanes or typhoons, allowing authorities to warn people earlier than they might otherwise be able to.

Gathering whale mucas: Previous gathering methods involved using long poles which could put researchers and whales at risk. Drones can be waterproofed and using a flip-lid container, capture and store samples of the whale's mucus. It allows researchers to stay at a safe distance from the giant animals, which weigh up to 80 tonnes. The collections can help scientists better monitor the health of the whales. https://www.wetalkuav.com/clever-ways-drones-helping-planet/

This drone just completed its longest flight ever, and that could change the way we use them Kelly Kasulis Dec. 29, 2017

Now, drone manufacturer Quaternium is showing off the HYBRiX.20, a hybrid gasoline-electric drone the company claims has broken the world record for longest flight — among self-powered drones with multiple rotors, that is.

Quaternium has proof of HYBRiX.20's long flight — after all, it filmed all 4 hours and 40 minutes of it. The video shows the drone hovering in air against a clock, with Spanish trees and strange, war-movie-esque music in the background. Source: Quaternium Technologies/YouTube

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Guinness World Records currently has the longest-recorded multicopter flight down as 2 hours, 6 minutes and 7 seconds. https://mic.com/articles/187124/this-drone-just-completed-its-longest-flight-ever-and-that-could-change-the-way-we-use-them#.6HjKmQRdV

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Gunning down flying drones February 3, 2018 Thomas Luna

From drone-catching drones to drone-jamming guns, anti-UAV technology has rapidly changed in the past three years. To appreciate just how much technology has progressed, take a look at how difficult it was to use bullets to down flying drones:

The video of the helicopter door gunner shooting a target drone was released on YouTube in 2015. According to AiirSource, the target practice was conducted by the US Navy off the coast of Naval Air Station Point Mugu in California. The exercise was part of Operation Black Dart, which is the Department of Defense's annual event for testing counter-UAV technology.

While the helicopter was moving, the gunner unloaded round after round towards what appears to be a fixed-wing drone. It took nearly a minute's worth of continuous bullets from the machine gun to down the drone, but once the UAV was hit, it swirled into the sea.

Another perspective shows the MH-60R helicopter flying next to the drone target. This angle shows how far the drone was from the gunner.

https://www.wetalkuav.com/gunning-down-flying-drones/

Drone hovers right above jet landing at Las Vegas airport STEPHEN SHANKLAND

FEBRUARY 2, 20185:15 PM PST

This video apparently was shot from a jet immediately above a jet landing at Las Vegas's airport.

The Federal Aviation Administration is investigating an incident in which someone apparently piloted a drone right above a jet landing at McCarran International Airport in Las Vegas.

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The KLAS TV station's LasVegasNow.com website published video Thursday taken at an unknown time from a drone hovering over the city as a jet approaches and then passes underneath. The FAA said Friday it's "aware of the incident and is investigating" but declined further comment.

The FAA can fine individuals up to $1,437 for each violation of flight safety rules. Business' fines can reach $32,666 per violation. Then there are criminal penalties of up to $250,000 in fines and three years in prison. https://www.cnet.com/news/drone-hovers-over-jet-landing-at-las-vegas-airport/

Va. lawmakers weigh new laws limiting drone flights NED OLIVER Richmond Times-Dispatch Feb 3, 2018

A helicopter lands at VCU Medical Center in downtown Richmond. Lawmakers have pointed to an incident in which a drone was spotted flying above the helipad as proof that the technology needs more regulation.

Virginia State Sen. John Cosgrove (R) introduced a bill "aimed at eventually granting the state's aviation board authority over drones, which are currently only regulated by the Federal Aviation Administration." Cosgrove's bill comes in the wake of a UAV being "spotted flying 50 feet above the downtown helipad that VCU Medical Center uses to transport critically injured patients," and would address concerns that "federal rules do not necessarily prohibit flights over helipads."

Meanwhile, state Del. Chris Collins (R) has introduced a bill to "give people the right to stop drone flights within 50 feet of their homes" and "make it illegal for sex offenders to use drones to take pictures of people." http://www.richmond.com/news/local/government-politics/the-anti-skynet-bill-va-lawmakers-weigh-new-laws-limiting/article_9facd79f-0aa1-54fb-9371-a4fd79018af3.html

German Aerospace Centre develops new urban airspace drone operational concept February 5, 2018 Philip Butterworth-HayesUAS traffic management news

The German Aerospace Centre (Deutsches Zentrum für Luft- und Raumfahrt (DLR) developed a new concept that brings unmanned aircraft of all classes together with conventional aircraft and helicopters within urban airspace and beyond for the very first time. The image of freight

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drones and air taxis flying above cities is no longer just science fiction, says the DLR. "The technical development of such aircraft is advancing apace and is set to pose major challenges to air traffic management for large cities and general areas of uncontrolled airspace at an altitude of up to 762 metres. The new DLR concept, in the form of the **Blueprint Concept for Urban Airspace Integration**, addresses this very issue."

"At the heart of the concept is the versatile assessment of every single aircraft according to its technical equipment and dimensions," says Dagi Geister, who leads the Unmanned Aircraft Systems expert group at the **DLR Institute of Flight Guidance**. "Drones that are well equipped in terms of navigational systems, Detect-and-Avoid sensors and communications and monitoring capabilities could fly in great numbers within a specific airspace segment. But if drones with inferior technology start to be used elsewhere, only a few flights will be permitted within a large area." In principle, however, the new concept allows all airspace users to fly, regardless of how technically sophisticated they are. http://www.unmannedairspace.info/uncategorized/german-aerospace-centre-develops-new-urban-airspace-drone-operational-concept/

Drone Market to grow to Almost $50 billion by 2023 February 5, 2018 Audrey Zhang

Analysts predict that the market for UAVs will grow from $17.82 billion to $48.8 billion by 2023.The forces that are causing this growth include the speed at which technological advances in drone manufacturing are being deployed as well as the record demand for drone-generated data applications in the consumer sector.

In 2017 it is estimated that military drone manufacturers hold the largest market share but this will change by 2023 with commercial drone manufacturers expected to obtain the lead the in market share on the back of expected robust demand in the commercial sector for drones and drone-related applications. Some of the market growth in commercial drones is also expected to come from the more permissive laws that are being applied across the world in countries that were once skeptical of drones in the civilian drone market.

The single most important component for drones going forward will be the camera. Cameras are used by drones for video surveillance and photography/videography, and have a wide range of uses in both security, defense, and commercial environments.
https://www.wetalkuav.com/drone-market-grow-close-50-billion-2023/

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ScanEagle UAS Offers New Capabilities Mark Huber February 3, 2018

The Boeing/Insitu ScanEagle fixed-wing UAS system continues to gain new features and capabilities as its popularity increases with both military and civilian users. The Singapore Navy has deployed it from its Victory class corvettes at sea, and it has also been used by the UK Royal Navy. The U.S. Navy has flown it since 2005, and worldwide it is in use by more than two dozen countries.

ScanEagle is also increasing in popularity for civil and parapublic operations. Late last year Insitu announced a contract with Shell QGC in Queensland (Australia) to use the system to monitor and inspect infrastructure in a patrol area encompassing 1.73 million acres in the massive Surat Basin gas fields, potentially reducing travel by ground crews of up to 800,000 km/year (432,000 nm/year). While the average ground crew can inspect four or five wellheads per day, Duggan said ScanEagle can do an order of magnitude of that easily.

Last year, ScanEagle was also flown over the massive wildfires in Oregon and California and Hurricane Harvey in Texas in the United States. ScanEagle collected and processed data on hot spot and fire line locations and disseminated up-to-date information to firefighters for their morning planning meetings. Duggan noted that ScanEagle can supplement manned firefighting fleets by "flying the gaps," or operating during dense smoke conditions or at night, when manned aircraft typically are grounded due to hazardous flying conditions.

Going forward, he said, the company is focusing on software that will enable the vehicle to do more data processing onboard and bringing autonomy to the system that "can be trusted by the regulators," even though ScanEagle is a robust and proven system with nearly 1 million flight hours. Beyond that he said, "These assets really start to show huge synergistic benefits to military and commercial organizations when one pilot can fly multiple aircraft. That is where the future is in this space." https://www.ainonline.com/aviation-news/defense/2018-02-03/scaneagle-uas-offers-new-capabilities

UTM company Altitude Angel attracts USD4.5 million funding boost January 30, 2018Philip Butterworth-HayesUAS traffic management news

Altitude Angel, the drone management platform and airspace integration start-up, has today announced a USD4.5 million Series A funding round led by the Seraphim Space Fund, with participation

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from ADV and Frequentis AG.

According to the company: "This Series A round of venture funding enables Altitude Angel to bring its purpose-built Guardian UTM platform for U-Space and unmanned aircraft traffic management (UTM) into new territories. The Reading, UK-based business will also expand its on-the-ground commercial and engineering presence with new offices in Europe and North America, transitioning further into the aviation industry."

"GuardianUTM is already used by millions of people and drones around the world to obtain information about where it is safe to fly, get on-demand insurance and to interact with aviation stakeholders at airport towers or in air traffic control rooms. It's fast becoming the platform of choice for national drone operations globally. Altitude Angel's geospatial database covers more than 80 countries and is a key component of its autonomous drone navigation system. This allows any drone to tap into its situational awareness database, helping them go beyond the line of sight of the operator. Altitude Angel's long-term goal is to use its platform to enable millions of autonomous drones to fly – safely – without any human pilots."
http://www.unmannedairspace.info/uncategorized/utm-company-altitude-angel-attracts-usd4-5-million-funding-boost/

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Singapore, Airbus to Test Drone Delivery Feb 5, 2018 ShowNews

Airbus has produced a unique drone for Skyways, designed to meet the safety requirements developed with the CAAS.

Singapore is striving to become a "smart nation" by embracing potentially disruptive technologies in all areas of daily life. These include driverless cars, delivery drones and autonomous air taxis, which could transform how people and goods move around this bustling city-state.

To explore how delivery drones could be used, Singapore turned to an experienced system integrator, Airbus. In February 2016, Airbus Helicopters signed a contract with the Civil Aviation Authority of Singapore (CAAS) to test a drone parcel delivery service on the campus of the National University of Singapore (NUS).

Skyways is an integrated service that will involve drones flying overhead, autonomously shuttling packages between stations on the NUS campus. If successful, the system could be extended outside of the university to service ships anchored in the Port of Singapore.

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A station-to-station delivery system has been designed for the NUS campus. A customer will take her package to a parcel station where she will enter its destination at a kiosk. A robotic arm will load the package onto the drone, which will launch and fly autonomously via an air corridor to the selected delivery station.

On landing, the package will drop onto the robot arm, which will place it in the appropriate parcel locker and the system will notify the recipient his package is ready for collection. http://aviationweek.com/singapore-airshow-2018/singapore-airbus-test-drone-delivery?NL=AW-021&Issue=AW-021_20180205_AW-021_951&sfvc4enews=42&cl=article_6&utm_rid=CPEN1000003332045&utm_campaign=13457&utm_medium=email&elq2=6ed6125e12b644c49947ff31c0d0fdcc

Louisiana's government and corporate drone usage grows *5th February 2018* Susan Buchanan *Contributing Writer*

Drones or Unmanned Aerial Systems are used in Louisiana for coastal mapping and restoration, flood monitoring, wildlife surveys, crop management, law enforcement and oil-and-gas activities.

The Army Corps flies them over the Mississippi River to collect high-resolution images, topographic data, flood elevations and to document vegetation and elevations in Louisiana marshes created by dredging activities.

During flood responses, the Corps relies on unmanned craft to monitor flows through spillways and slides by levees.

The state's Department of Wildlife and Fisheries began using drones in the fall of 2016 and owns two of them. "So far we've used them for wildlife surveys and bird egg counts and to assess feral hog damage."

The state's Department of Transportation and Development uses their three drones for aviation inspections at airports and to survey and assess road projects,"

Great Lakes Dredge & Dock Co., LLC started using them 10 years ago and has three licensed drone pilots. "In the future, whether we end up using photogrammetry techniques or Lidar, opportunities for surveying large areas with drone technology are countless."

Law enforcement agencies in Louisiana are starting to use drones. The Slidell Police Department owns one.

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Drones are used in the state's oil and gas industry. In exploration and production, they're used to inspect or survey property prior to leasing and also to access points high on rigs.

Pipeline operators use drones to survey or inspect long rights of way. At refineries, drones can inspect the highest points, such as flares and cokers. The more-sophisticated, expensive drones are equipped with infrared cameras to detect leaks. http://www.louisianaweekly.com/louisianas-government-and-corporate-drone-usage-grows/

Watch world's first passenger-carrying drone EHang184 take flight February 6, 2018 Audrey Zhang

On February 6, EHang announced that the EHang 184 Autonomous Aerial Vehicle (AAV) has achieved a series of manned flight tests carrying one and two passengers.

The EHang 184 designation comes from the unit's single passenger, eight propellers, and four arms design.

EHang showed what it thinks will be the future passenger transport. The drone is compact and futuristic, featuring a joystick for flight control but totally unmanned in planned use. Building upon the commercial success of their ghost drone line, this autonomous vehicle not only wants to advance drone technology to next level but also change passenger travel as we currently understand it. And as the test-flight video shows, the EHang 184 could make this dream a reality.

Designing the world's first aerial autonomous vehicle for short distances, the EHang 184 is capable of transporting a passenger to a destination input on a smartphone in a bit of tech that combines Blade Runner and the Jetsons, as the manned test flight video clearly demonstrates. https://www.wetalkuav.com/watch-worlds-first-passenger-carrying-drone-take-flight/

State transportation officials explore medical drones Taft Wireback taft.wireback@greensboro.com Feb 5, 2018

RALEIGH — The state Division of Aviation wants to test the use of unmanned aircraft for medical deliveries in North Carolina as part of a new federal initiative.

The division recently submitted a proposal to the Federal Aviation Administration that would explore using drones to deliver medical supplies ranging from blood transfusions to test results and medications.

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Those materials currently are delivered to hospitals and other medical facilities by courier. With drones, medical providers potentially could receive the test results and supplies they need much faster, said Bobby Walston, who directs the division that is part of the state Department of Transportation.

"We've been researching and investing in drone technology for years at NCDOT," Walston said. "This proposal represents the next big step for us."
http://www.greensboro.com/news/government/state-transportation-officials-explore-medical-drones/article_5d357bd5-fe4f-51ae-a1aa-d96f2adbbde6.html

FAA UAS Symposium Comes to Baltimore in March **Betsy Lillian** February 5, 2018

The Federal Aviation Administration (FAA) and the Association for Unmanned Vehicle Systems International (AUVSI) are co-hosting the third annual FAA Unmanned Aircraft Systems (UAS) Symposium next month in Baltimore.

Held on March 6-8 at the Baltimore Convention Center, the symposium will bring together representatives from the FAA, other government agencies, industry and academia to discuss issues related to UAS and their integration into national airspace, says the FAA. The three-day event will include panels, breakout sessions and workshops.

The FAA will be operating an on-site resource center to help with airspace authorizations, waivers, and other drone policies and regulations, such as Part 107. More information can be found here. https://unmanned-aerial.com/faa-uas-symposium-comes-baltimore-march

"Gently Used" SpaceX Rocket Appears On Craigslist.

USA Today (2/5) reports that a "gently used" SpaceX orbital launch vehicle has been listed on Craigslist for $9.9 million "or best offer."

Drone catchers and face-detecting planes will guard the Olympics Mariella Moon, 02.04.18 in Robots

South Korean authorities are adopting some pretty high-tech security measures for the upcoming Winter Olympics, including the deployment of drone-catching-drones and a tactical plane with facial recognition. The drones they're using to patrol the event won't chase away rogue drones that get too close to the venues: they'll cast nets to catch any UAV that shows up on the the security team's radar.

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Pyeongchang Olympics anti-Terrorism and Safety team are concerned about the possibility of terrorists using drones to drop or plant bombs. In fact, team members have also been training to shoot drones out of the sky, in case their own drones aren't enough.

While the team's UAVs are scanning the skies, their tactical plane will focus on what's happening down below. The plane is equipped with high-resolution CCTVs with facial recognition, giving it the ability to keep a close eye on what's happening on the ground from an altitude of around 150 to 200 meters. If it picks up a threat, security personnel will be deployed to the area to handle the incident. https://www.engadget.com/2018/02/04/olympics-drone-catchers-face-detecting-planes/?ncid=txtlnkusaolp00000618

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Interactive Drone Museum Opens in Osaka, Japan February 5, 2018 Audrey Zhang

Two things often hold consumers back from making that big drone purchase. Cost and the fear of damaging the drone through improper use. A pioneering group in Japan is hoping to change that, at least for Japanese drone enthusiasts.

In a first for Japan, the nation's premier drone museum opened in its second largest city of Osaka, featuring a lineup of drones that visitors can purchase and even try out, right there in the museum.

Skyasky Company, a drone piloting instruction school in Japan, sponsors the Drone Museum Horie.

The new museum features 16 different types of drone from a range of manufacturers inside of Japan and from abroad. There's a little something for everyone in the drone industry here, with drones ranging from palm-sized bots to massive crop duster drones.

The museum even sports some cutting-edge drone technology, such as one that responds purely to gesture-based controls.

One of the biggest draws for the museum is its indoor space that is large enough for drone flight and instruction. Visitors will be able to test drones in hands-on modules and even take

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part in drone flight classes. https://www.wetalkuav.com/interactive-drone-museum-opens-osaka-japan/2/

NC DOT Wants To Use Drones To Deliver Emergency Supplies REBECCA MARTINEZ • FEB 6, 2018

The North Carolina Department of Transportation is applying to be part of a federal drone program.

North Carolina hopes to use drones to deliver emergency supplies in the state, but several issues will need to be worked out first, according to Basil Yap, program manager of the Unmanned Aircraft Systems of the NC Division of Aviation.

In the U.S., it's currently illegal to operate a drone outside the pilot's line of sight. But this program would collect data before the FAA considers loosening restrictions. Yap said one model is the use of drones to deliver blood in developing countries, but that operating drones in the U.S. is much more complicated.

"In other countries where these are operating, they don't have as dense or complicated of airspace as the United States does," Yap said. The three-year program would gather and analyze safety and social issues associated with drone delivery. http://wunc.org/post/nc-dot-wants-use-drones-deliver-emergency-supplies#stream/0

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AeroVironment Automated Hybrid Drone and Decision Support System Now Available January 31, 2018

MONROVIA, Calif., Jan. 31, 2018 – AeroVironment, Inc. (NASDAQ: AVAV) today announced that its automated Quantix™ hybrid drone and AeroVironment Decision Support System (AV DSS™) analytics software are now available for sale through its authorized reseller network. A complete drone and AV DSS bundle is valued at $16,500.

"We are offering farmers the first fully integrated drone, sensor and software information solution, that's as easy to use as an app, for collecting and using aerial imagery. Farmers can now survey their entire farm more efficiently and accurately, on their schedule, to enable better decision making and farm management."

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With Quick-Look™, farmers can view Quantix data in the field after each flight, offering a near real-time view of their farm. "We helped farmers use aerial imagery and analytics to assess the effectiveness of their growing processes, improve their scouting efficiency, and learn from changes in historical data to make improvements year-over-year."
https://www.avinc.com/resources/press-releases

Drone Inspections Company HAZON Sets up Shop in Texas Betsy Lillian February 6, 2018

Virginia Beach, Va.-based HAZON Solutions, a provider of drone inspection services and crisis response, has opened up a new office in Austin, Texas.

The company's second office will serve the Southwest region. According to HAZON's CEO and co-founder, retired U.S. Navy Capt. David A. Culler Jr., the opening of a new location was a "natural move" for the expanding company.

"We are extremely excited about opening our first regional office," says Culler. "Today represents an enormous milestone for HAZON and for our clients. This will increase our reach across the country and ensure we're able to better meet our clients' needs. "HAZON focuses on critical infrastructure inspections for Fortune 500 utility and industrial clients. Going forward, the energy sector will be a key market, the company notes. https://unmanned-aerial.com/drone-inspections-company-hazon-sets-shop-texas?utm_medium=email&utm_source=LNH+02-08-2018&utm_campaign=UAO+Latest+News+Headlines

Black Swift, NASA Demo Effective Use of sUAS at Active Volcano Betsy Lillian February 6, 2018

Black Swift Technologies (BST), a specialized engineering firm based in Boulder, Colo., has announced a successful collaboration with NASA's Jet Propulsion Laboratory (NASA/JPL) to capture airborne carbon dioxide (CO2) measurements via a small unmanned aircraft system (sUAS) over the forest canopy near an active volcano.

By measuring and monitoring the prevalence of volcanic gases emitted from the vents and fractures of active volcanoes, NASA/JPL hopes to better understand how volcanoes work and improve volcano eruption planning and warning capabilities, says BST.

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The flights were conducted in Costa Rica in January with the assistance of Dr. Jorge Andres Diaz and his staff from the University of Costa Rica. They used BST's Black Swift S2 drone, equipped with sensors designed to measure CO2 and water vapor being emitted by the volcano. Future flights of the Black Swift S2 will incorporate sensors capable of measuring methane, hydrogen sulfide and sulfur dioxide, as well as a nephelometer to assess volcanic particle size and distribution, coupled with atmospheric probes to analyze pressure, temperature, humidity and 3D wind patterns. https://unmanned-aerial.com/black-swift-nasa-demo-effective-use-suas-active-volcano?utm_medium=email&utm_source=LNH+02-08-2018&utm_campaign=UAO+Latest+News+Headlines

Free 'UAS Pilots Code' Rolled out in Support of Increased Drone Safety Betsy Lillian February 7, 2018

In an effort to increase drone flight safety, Embry-Riddle Aeronautical University faculty specializing in unmanned aircraft systems (UAS) recently helped draft a comprehensive UAS Pilots Code (UASPC) guide for both experienced and new drone users.

The whole UAS industry is looking for the kind of safety and operational guidance the UAS Pilots Code provides," says Wallace. "We collected the very best principles and industry-tested best practices for UAS operation and vetted them with industry, government and academia."

The code, which was created in conjunction with fellow academics, industry and government groups, is organized into seven sections: General Responsibilities of UAS Pilots; Manned Aircraft and People on the Surface; Training and Proficiency; Security and Privacy; Environmental Issues; Use of Technology; and Advancement of UAS Aviation. https://unmanned-aerial.com/free-uas-pilots-code-rolled-support-increased-drone-safety?utm_medium=email&utm_source=LNH+02-08-2018&utm_campaign=UAO+Latest+News+Headlines

NCDOT Aims to Make U.S. Medical Drone Delivery a Reality Betsy Lillian February 7, 2018

The North Carolina Department of Transportation's (NCDOT) Division of Aviation says it has submitted a proposal to be a part of the Federal Aviation Administration's Drone Integration Pilot Program (IPP). The agency's proposal focuses on drone-based delivery of medical supplies.

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According to NCDOT, the initiative would involve working with global drone delivery companies, such as Matternet and Zipline, to set up a network of medical distribution centers that could use unmanned aircraft systems (UAS) to make deliveries of blood and other supplies, which currently travel by courier to hospitals and testing facilities.

"We've been researching and investing in drone technology for years at NCDOT. This proposal represents the next big step for us as we remain a national leader in the UAS field."NCDOT notes it has also partnered with UAS software companies such as AirMap and Raleigh-based PrecisionHawk to develop an unmanned traffic management system to track the drones.
https://unmanned-aerial.com/ncdot-aims-make-u-s-medical-drone-delivery-reality?utm_medium=email&utm_source=LNH+02-08-2018&utm_campaign=UAO+Latest+News+Headlines

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Researcher explores whale response to noise pollution using drones **February 8, 2018** Audrey Zhang

A highly auditory creature, whales often use distinct cries to communicate with others in their pod. It is often thought that the intense noise pollution caused by seaborne shipping has a deleterious impact on the health of whales. Now science is closer to finding an answer on how this impact's whale health, and they're using drones to find out.

Dr. Leigh Torres, an Oregon State University researcher, is using her technology to observe whales in a prime feeding area in Yaquina Bay, an area that also doubles as a prime fishing spot and is a busy traffic lane for coastal shipping.

Using an aerial drone, Torres and her team can get overhead shots of the whales and then use that to estimate their weight and size, even what they may be eating currently.

Oregon State University researcher Leigh Torres demonstrates how drone footage allows her to measure the length and girth of gray whales off the Oregon coast.

As for how the team measures a whale's level of stress, the answer is quite less technologically impressive. Basically, they team collects the whale's poop and analyzes it. This substance is a wealth of information for the scientists and can reveal

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everything from hormone levels to disease. https://www.wetalkuav.com/whale-response-noise-pollution-using-drones/

UAS Stakeholders Urge FAA To Find Reckless Las Vegas Operator *Letter Sent To FAA By AUVSI On Behalf Of The Industry*

In a letter to the FAA, stakeholders from the unmanned aircraft systems (UAS) community – including business users and government officials – urged the FAA to use its full authority to investigate, identify and apprehend an operator who recently flew a UAS over an airliner making its final approach at Las Vegas McCarran International Airport.

"Strict enforcement will not only punish the operator responsible for this unacceptable and reprehensible action, but will also serve as a deterrent to others for misusing UAS technology and create accountability among UAS operators," the groups wrote. "Collaboratively, our organizations will continue to educate UAS operators about where they should and should not fly to help prevent similar incidents in the future."

Other organizations that signed the letter are the Academy of Model Aeronautics, Aerospace Industries Association, Aerospace States Association, Commercial Drone Alliance, Consumer Technology Association, Drone Manufacturers Alliance, Drone User Group Network, General Aviation Manufacturers Association, Helicopter Association International, National Association of State Aviation Officials, National Press Photographers Association and the Small UAV Coalition. http://www.aero-news.net/index.cfm?do=main.textpost&id=7346e337-6865-4b99-8a51-91b47a906b95

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