



## UAS and SmallSat Weekly News

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### Could drones save cows? Lindsey Piercy, University of Kentucky Jan 30, 2020



It's a staggering statistic—every year nearly 3 million cows in the U.S. die from health problems. And it's costing the cattle industry more than \$1 billion. Combating this loss starts at the producer level. Ultimately, improved observation of cows in the pasture will reduce herd loss.

Jesse Hoagg, the Donald and Gertrude Lester Professor of Mechanical Engineering at the University of Kentucky, thinks so. With the help of a **\$900,000** grant from the United States Department of Agriculture, he is diligently working on a noninvasive health monitoring approach using unmanned aerial vehicles—otherwise known as drones.

The drones would provide farmers with a way to remotely and autonomously check on the location and health of each cow—allowing them to address cattle health and safety issues much sooner. [https://www.hpi.com/livestock/could-drones-save-cows/article\\_e77e8a20-6c4a-52a4-86c5-85c97fd12336.html](https://www.hpi.com/livestock/could-drones-save-cows/article_e77e8a20-6c4a-52a4-86c5-85c97fd12336.html)

### US orders temporary grounding of non-emergency UAS fleet operations 30

JANUARY 2020 NEWS



The US Department of Interior has ordered the temporary grounding of non-emergency unmanned aircraft systems fleet operations.

Order 3379 was signed by Interior Secretary David Bernhardt and intends to ensure better cybersecurity and protect the supply of American UAS technology acquired to support the department mission. The order is applicable to all bureaus/offices, and UAS includes unmanned aerial systems and drones. It is also applicable to other similar technology including components that are remotely controlled and subject to US Federal Aviation Administration regulations.

DOI spokesperson Carol Danko said: "Drones are important to critical Department of the Interior missions, such as combating wildfires and conducting life-saving search and rescue operations; however, we must ensure that the technology used for these operations is such that it will not compromise our national security interests."



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Following the order, drones will be allowed to operate in approved situations such as fighting wildfires, search-and-rescue, and dealing with natural disasters that may threaten life or property. The Assistant Secretary – Policy, Management and Budget - has been given the responsibility to issue implementation guidance within the next 30 days. <https://www.aerospace-technology.com/news/us-orders-temporary-grounding-of-non-emergency-uas-fleet-operations/>

### How Drones Become a Valuable Tool for the Auto Insurance Industry Jan 29, 2020

SAP BRANDVOICE Michael Kure, Lead Copywriter, SAP Customer Lifecycle Marketing



Accenture BeLux has developed a solution using SAP technology that would automate workflows in auto collision situations by shortening the process to clear and close claims. How it works:

When a car is involved in an accident, the vehicle automatically sends a signal to a UAV station and a drone is dispatched to the location of the accident. The location of the drone force is defined by predictive analytics based on historical accident data in that area and weather conditions.

Photos are taken by the drone and immediately sent to emergency services when injuries are 3D images can be used to trigger other processes such as estimating the cost of repairs, proposals for spare parts, making an appointment for car body work.

A report is then sent directly to the insured **at the scene of the accident**, providing information that will help jump start and shorten the claims process.

<https://www.forbes.com/sites/sap/2020/01/29/how-drones-become-a-valuable-tool-for-the-auto-insurance-industry/#481277df1ac9>

### The FAA asks for your help on remote ID for drones



Help us prepare for the next exciting step in safe [drone integration](#). The Federal Aviation Administration has issued the [proposed rule](#) for [remote identification of drones](#) and is **seeking comments by March 2**. We highly value the input of the public to help shape the framework for safe drone operations.

With nearly 1.5 million drones and 155,000 remote pilots registered with the FAA, the ability to provide identification and location is essential to keeping drones safely separated from other aircraft operating in our airspace. Equipping drones with remote identification, or [Remote ID](#), technologies builds on the previous steps taken by the FAA and the drone community to safely



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integrate operations. Remote ID is part of the foundation for more complex operations, such as beyond visual line of sight at low altitudes.

We hope you can take time to read our [Notice of Proposed Rulemaking](#) in the *Federal Register* and provide your feedback to help us develop a final rule that enhances the safety and security of our nation's skies. Thank you in advance for taking the time to provide us with your input to the Remote ID rule. [https://www.faa.gov/news/contact\\_information/](https://www.faa.gov/news/contact_information/)

### **The Drones Protecting One of the Biggest Parties in the U.S.: SuperFest** Miriam McNabb January 31, 2020



[Easy Aerial](#) is a small company with a list of customers that include the U.S. Air Force, the Department of Defense, Department of Homeland Security and Border Patrol. But this week, their drones are securing one of the biggest parties in the U.S.: Miami's SuperFest.

The Miami-Gardens Police Department will use the fully autonomous, drone-in-the-box solutions to help them secure the 5 day celebration leading up to this weekend's Super Bowl. SuperFest brings almost 600,000 people into an area that is normally a vast parking lot.

Miami-Gardens P.D. will use two drones – one that will launch and fly on a scheduled system for perimeter security. The second is the same box, with the same drone – but attached to a cable, which provides communications and power. "The tethered system can fly for 16 – 18 hours straight: no radios, cyber immune," says Ido Gur, Easy Aerial's co-founder and CEO. The drone is incredibly easy to use, requiring no piloting skills, and is designed to respond instantly when launched: "In 5 seconds, the box opens – and in 20 seconds it reaches max altitude, in this case 200 feet."

Officers can drive the F-150 pickup while the drone, which is equipped with a high resolution zoom camera, is in the air; giving them a birds' eye view of the celebrations and enabling the team to monitor crowds and respond quickly to any problems.

<https://dronelife.com/2020/01/31/the-drones-protecting-one-of-the-biggest-parties-in-the-u-s-superfest/>



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### Ukrainian 'Berehynya' drone to support soldiers on in the field Josh Spires Jan. 30th 2020



Ukrainian company Meridian Corporation has developed a [drone](#) to fly alongside Ukrainian soldiers to provide situational awareness, [surveillance](#), and reconnaissance while in the field. The drone took six months to develop and test.

The drone weighs 2.2 pounds, has a range of 7.5 miles, can reach an altitude of 330 feet in 3 seconds, is resistant to winds of up to 20 m/s, and is resistant to interference from the electromagnetic spectrum. The drone is [3D printed](#), suggesting that fast replacements can be **printed in the field**, meaning the drone can be flying again in a short amount of time.

The drone is equipped with two cameras, an [analog and digital camera](#), the analog is broadcasted to the pilot and a ground station. The setup is presumably used for its low latency video feed while the higher-quality digital camera is used for inspection, once the drone is back at base. <https://dronedj.com/2020/01/30/ukrainian-berehynya-drone-support-solders-field/>

### Iowa State Patrol to use drones to aid investigations Josh Spires Jan. 31st 2020



[Iowa State Patrol](#) will begin using drones to aid in investigations and map road crashes for further digital investigation. This welcomed [piece of equipment](#) will allow for Iowa roads to open up sooner after a crash, up to three times faster in some cases.

The State Patrol will begin to implement using drones as a new tool when responding to crash sites, the drones will be used to [create a 3D map](#) of crash scenes, allowing the State Patrol to map evidence and better understand the crash scenes.

Trooper White from Iowa State Patrol had the following to say on what the drones will be doing once deployed. *"It's able to create a 3D rendering of the scene, and with that, we are able to see all the roadway evidence that was existing there and be able to study the dynamics of the crash and come up with a solid conclusion."* <https://dronedj.com/2020/01/31/iowa-state-patrol-to-use-drones-to-aid-investigations/#more-23583>



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### Laflamme Aéro receives \$2 Million in VC Funding For its LX300 UAS January 30, 2020 News



Laflamme Aéro, located in the Thetford Mines region, announces the conclusion of a \$ 2 million round of financing with Investissement Québec, Anges Québec and Anges Québec Capital. The company is preparing to market its LX300 drone, the **first** unmanned helicopter capable of carrying loads of 90 kilos.

“It is one of the largest civilian drones in the world. With 300 kilos, it is distinguished by its versatility, its ability to transport heavy loads and its flight time of eight hours. This investment of \$2 million allows us to promote our product to major national and international markets, “explains Enrick Laflamme, engineer, co-founder and president of Laflamme Aéro.

In addition to the commercial deployment of the aircraft, the investments will support the improvement of the company’s infrastructure and the establishment of an assembly line and new resources to support the growth of the company, as well as continuity in research and development of new products. [https://uasweekly.com/2020/01/30/laflamme-aero-receives-2-million-in-vc-funding-for-its-lx300-uas/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_31\\_2020&utm\\_term=2020-01-31](https://uasweekly.com/2020/01/30/laflamme-aero-receives-2-million-in-vc-funding-for-its-lx300-uas/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_31_2020&utm_term=2020-01-31)

### COMMERCIAL UAV EXPO AMERICAS 2019 POST-SHOW REPORT EXPOUAV.COM

Commercial UAV News

With the vibrancy and growth of the fifth annual Commercial UAV Expo Americas (October 28-30, 2019), we demonstrated that the commercial drone industry is alive and thriving. Our record-breaking numbers with over **3,100 attendees**, 200 exhibiting companies, and 285 media and association partners from **6 continents** bears this narrative out: There is money to be made in the here and now, and Commercial UAV Expo Americas was the place to find out how. Commercial UAV Expo has the distinction of being one of Trade Show Week’s Top 25 fastest growing trade shows and has cemented its place as the largest and most important commercial UAS-focused event in North America. By bringing together the most influential companies and thought leaders to share their solutions and expertise, we are pleased to be able to help facilitate the growth of this burgeoning industry.

Commercial UAV Expo has the distinction of being one of Trade Show Week’s Top 25 fastest





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growing trade shows and has cemented its place as the largest and most important commercial UAS-focused event in North America. By bringing together the most influential companies and thought leaders to share their solutions and expertise, we are pleased to be able to help facilitate the growth of this burgeoning industry. Read our Commercial UAV Expo Americas 2019 Report [here](https://expouav-static.s3.amazonaws.com/uploads/2020/01/UAV19_Post_Show_Report.pdf?mkt_tok=eyJpIjoiWVdOaE0ySXBpZElwTnpsbCIsInQiOiJkUWE5aWtxZTdoM29pWVBWSW1pZ0RGVIZVY2grY2VvTWwxRExMZUlId3JCWUJBUjQySTVIRzEra09MeDFLN09hanM5dEI4NUt6YVBOKzJxcHJLNzhQRzEyVWFNZXAreStcL2Rma2V6T0pHZk80TkIwWDInUjFjTlY0VkJwcnI3UmgifQ%3D%3D). [https://expouav-static.s3.amazonaws.com/uploads/2020/01/UAV19\\_Post\\_Show\\_Report.pdf?mkt\\_tok=eyJpIjoiWVdOaE0ySXBpZElwTnpsbCIsInQiOiJkUWE5aWtxZTdoM29pWVBWSW1pZ0RGVIZVY2grY2VvTWwxRExMZUlId3JCWUJBUjQySTVIRzEra09MeDFLN09hanM5dEI4NUt6YVBOKzJxcHJLNzhQRzEyVWFNZXAreStcL2Rma2V6T0pHZk80TkIwWDInUjFjTlY0VkJwcnI3UmgifQ%3D%3D](https://expouav-static.s3.amazonaws.com/uploads/2020/01/UAV19_Post_Show_Report.pdf?mkt_tok=eyJpIjoiWVdOaE0ySXBpZElwTnpsbCIsInQiOiJkUWE5aWtxZTdoM29pWVBWSW1pZ0RGVIZVY2grY2VvTWwxRExMZUlId3JCWUJBUjQySTVIRzEra09MeDFLN09hanM5dEI4NUt6YVBOKzJxcHJLNzhQRzEyVWFNZXAreStcL2Rma2V6T0pHZk80TkIwWDInUjFjTlY0VkJwcnI3UmgifQ%3D%3D)

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### Watch Drones Scold Civilians for Not Wearing Masks in China *Chas Danner CHINA*

JAN. 31, 2020 Global Times Jan 31, 2020



“Hey Auntie.”

Some in China have been using drones to publicly scold people walking around outside without wearing a face mask amid the country’s growing coronavirus outbreak. On Friday, the English-language version of the Global Times [passed along](#) some footage of the drone warnings after they were shared on China’s popular Weibo social network. In the viral video, residents of a village in Inner Mongolia are **startled** when they hear a disembodied voice from a hovering drone admonishing them for not wearing face masks outside. “Yes, Auntie, this is the drone speaking to you — you shouldn’t walk about without wearing a mask,” the voice announces to an elderly woman.

Walking around without a protective face mask? Well, you can't avoid these sharp-tongued drones! **Many village and cities** in China are using them equipped with speakers to patrol during the [#coronavirus](#) outbreak.

Noted the Global Times report, “The innovative usage of drones has cheered up Chinese netizens who have not been able to indulge in outdoor entertainment events this [Lunar New Year Holiday] because of the coronavirus.” <http://nymag.com/intelligencer/2020/01/coronavirus-watch-drones-scold-maskless-civilians-in-china.html>



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### Resort Officials Sign Off On Ambitious Drone Program Jan 30,2020 Shawn Soper

OCEAN CITY- The future has arrived in Ocean City with a plan **approved** this week to utilize Unmanned Aircraft Systems for all manner of public safety and other applications.

For the last several months, Emergency Services Director Joe Theobald has been working with the Federal Aviation Administration to allow Ocean City to begin implementing a UAS program. "This is something that has been under consideration for about **20 months**," he said. "This is a tool that's good for the town from a public safety standpoint and a myriad of other uses. It's been a **tedious approval process**, but we wanted to establish a program that meets all of our needs and complies with all federal guidelines."

The sky's the limit, so to speak, for the town's budding drone program in a variety of uses. From a law enforcement standpoint, the drones can be used for aerial surveillance during incidents and accidents, and they can be used to provide aerial images of special events where large crowds gather.

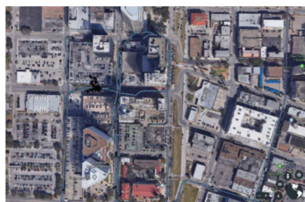
For the fire department, the UAS can provide firefighters and first-responders with real-time aerial images of active fires and emergency situations, allowing the department to best direct operations from the ground. The Beach Patrol can use the drones for water search and rescue missions, and they can be used to survey post-storm beach erosion and flooding.

What they won't be used for, according to Theobald, is to survey everyday crowds on the beach or Boardwalk or any purposes that would hint at spying on residents and visitors.

<https://mdcoastdispatch.com/2020/01/30/resort-officials-sign-off-on-ambitious-drone-program/>

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### NASA trials show resilience of GPS signals in urban canyons during drone operations January 29, 2020 Philip Butterworth-Hayes UAS traffic management news



There is sufficient accuracy and reception of GPS navigation satellites to obtain a fix within acceptable error limits within "urban canyons", according to recently published results of a NASA UAS traffic management technology capability level four demonstration *Operational Considerations of Small UAS in Urban Canyons* within the Lone Star UAS Center of Excellence and Innovation.

According to the final report from the test:





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“There is a general lack of in-situ data to confirm the capabilities of small UAS to operate in an environment where there are significant structures surrounding the flight path. As a prelude to NASA UTM TCL4 testing to be conducted in downtown Corpus Christi, Texas, a series of experiments were performed to determine performance characteristics of key sUAS systems in the environment for the tests. Specifically, the performance of the sUAS GPS navigation and the GCS control and telemetry links to the sUAS were tested in-situ on the routes expected during the NASA tests. The preliminary analysis of the data taken indicates that **it is feasible** for the sUAS to operate in the urban canyon. While performance is degraded relative to an “open air” baseline, it appears there is sufficient accuracy and reception of GPS navigation satellites to obtain a fix within acceptable error limits. In addition, the telemetry experiments indicated that loss of point-to-point RF links in the ISM band are likely when operating BVLOS from the GCS/launch point.

For more information [https://utm.arc.nasa.gov/docs/2020-Logan\\_SciTech\\_2020-1483\\_UTM.pdf](https://utm.arc.nasa.gov/docs/2020-Logan_SciTech_2020-1483_UTM.pdf) <https://www.unmannedairspace.info/uncategorized/nasa-trials-show-resilience-of-gps-signals-in-urban-canyons-during-drone-operations/>

**Energy & Utilities Roundtable Report** Key issues and takeaways from a closed-door roundtable discussion at Commercial UAV Expo Americas 2019. 2 SEPT 15 – 17, 2020 LAS VEGAS [expouav.com](http://expouav.com)

As part of 2019 Commercial UAV Expo Americas, high-level players operating within the commercial UAV space met in a series of closed-door roundtable discussions. The various sectors that make up energy and utilities were well-represented at the roundtable with people from hydro, telecommunications, and energy. Their key concerns revolved around managing their unmanned flights with manned flights and how to better process, analyze, and secure their data. Each discussion focused on a key industry vertical – Air Traffic Management, Cybersecurity, Data Processing and Analysis - and the challenges that these industries were facing. Because competitors were willing to come together to address industry-wide problems, they revealed system-wide challenges within their industries. Although each vertical had their separate and distinct concerns, there were some overarching themes and concerns that they all shared including navigating regulations, finding the right technology to suit their needs, and finding ways to educate the public about drone operations. What we discovered over the course of these hearings was that each industry met with challenges in almost every sector along the supply chain from hardware and regulations to management software and data analytics. The purpose of this report is to distill key insights from the Energy & Utilities



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Roundtable Conversations into actionable takeaways for the industry. [https://expouav-static.s3.amazonaws.com/uploads/2020/01/Energy\\_Uilities\\_Report1.27.20.pdf](https://expouav-static.s3.amazonaws.com/uploads/2020/01/Energy_Uilities_Report1.27.20.pdf)

### How Drone Swarms May Save Urban Warriors Jason Reagan February 03, 2020



In the future of urban warfare, swarms of autonomous drones and ground vehicles will win battles before they even begin.

DARPA's [OFFensive Swarm-Enabled Tactics \(OFFSET\)](#) program recently tested a swarm of **250 unmanned vehicles** in a mock city at

Camp Shelby Joint Forces Training Center in Mississippi. Most soldiers will tell you urban campaigns are the most harrowing, with jutting buildings and zig-zagging streets ruining sight lines and tight spaces limiting battle options. Danger is literally just around every corner.

Descending on the town-like test site, the swarm of rotor-drones and small trucks – known as Swarm Systems Integrator teams – gather valuable data about the urban-scape by locating data-rich bar codes affixed to the building. The tags represented items of interest or hazards troops might find in a city. A DARPA statement explains:

*"As the swarm relayed information acquired from the tags, human swarm tacticians adaptively employed various tactics their teams had developed to isolate and secure the building(s) containing the identified items. Concurrently, separate subswarms also were often tasked to maintain situational awareness and continue observation of the surrounding environment."*

<https://dronelife.com/2020/02/03/how-drone-swarms-may-save-urban-warfighters/>

### New Radar System Can Track Drones in 3D Jason Reagan February 03, 2020



Radar specialist Aveillant partnered with the National Beyond Visual Line of Sight Experimentation Corridor in December to trial a **unique holographic radar** technology. NBEC is a research collective and test site sponsored by Cranfield University, Blue Bear Systems Research, Thales (Aveillant's parent company) and Vodafone. Aveillant radar systems are being used at several international airports to prevent rogue drones from entering flight paths. The testing area stretches **10 miles** from Cranfield's global research airport.

Aveillant's holographic radar system differs from traditional radar systems. It only requires a narrow bandwidth. That improves detection performance against multiple targets. "The radar successfully detected and tracked a number of different drones, with excellent correlation between the detected and real tracks," Aveillant CEO Dominic Walker said.



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"NBEC is a national asset that will help unlock the potential of a modernized UK airspace," Cranfield's Director of Aerospace Iain Gray said. **"The key to future drone operations is not segregation, but full integration, ensuring fair and equitable use of airspace."**  
<https://dronelife.com/2020/02/03/new-radar-system-can-track-drones-in-3d/>

**4Feb20**

### **FAA Moves toward Certifying Specific Drones for Package Deliveries** Andy Pasztor Feb. 3, 2020



U.S. aviation regulators plan to craft new safety standards for specific unmanned-aircraft models, the biggest step yet toward eventually authorizing widespread delivery of packages by drones. The Federal Aviation Administration's proposal, disclosed on Monday in a Federal Register filing, is couched in dry bureaucratic language but amounts to a **major policy and regulatory win** for [Amazon.com](https://www.amazon.com) Inc. and other companies seeking to gain approval for various types of drones for small-package delivery fleets.

The FAA **for the first time** formally laid out a policy intended to vet the design and reliability of drones, similar to how it determines the safety of gliders and other light aircraft. By announcing the initiative and seeking public comment, the agency started down the path to certify drones as a **"special class"** of aircraft—essentially seeking to give them some of the regulatory certainty that airliners, business jets, helicopters and small private planes enjoy.  
<https://www.wsj.com/articles/faa-moves-toward-certifying-specific-drones-for-package-deliveries-11580764882>

### **Cygnus departs space station, deploys CubeSats** February 3, 2020 Stephen Clark



A Northrop Grumman Cygnus cargo craft departed the International Space Station Friday to close out a three-month stay, then raised its orbit to release **multiple experimental nanosatellites** for NASA, the U.S. military and research institutions, including one that was snap-assembled by astronauts using 3D-printed **parts produced on the station**.

After reaching a safe distance from the space station, the Cygnus cargo craft — named the S.S. Alan Bean in honor of the late Apollo 12 moonwalker — fired thrusters to raise its orbit to an altitude of more than 285 miles to begin ejecting **14 CubeSats** to begin their scientific research



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and technology demonstration missions. <https://spaceflightnow.com/2020/02/03/cygnus-departs-space-station-deploys-cubesats/>

### Holographic Radar Technology Trialed for Unmanned Traffic Management 31 Jan

2020 Mike Ball



The [National Beyond Visual Line of Sight \(BVLOS\) Experimentation Corridor](#) (NBEC), a collaboration between Cranfield University, Blue Bear Systems Research, Thales and Vodafone, has announced that it is testing new holographic radar technology that may allow unmanned aerial systems to fly **in the same airspace** as manned aircraft.

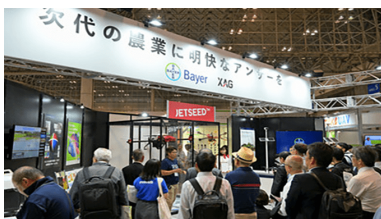
The NBEC is a 10-mile BVLOS flight corridor running from Cranfield University's global research airport towards Blue Bear Systems Research's Twinwoods test site that provides a safe, managed environment for drone research and experimentation for applications including emergency services and medical industries.

The holographic radar technology has been developed by radar specialist firm Aveillant and is being used to detect drones at several international airports. It differs from traditional mechanically scanned radars and electronically scanned systems, requiring only a very narrow bandwidth and digitizing the entire detected airspace.

[https://www.unmannedsystemstechnology.com/2020/01/holographic-radar-technology-trialled-for-unmanned-traffic-management/?utm\\_source=UST+eBrief&utm\\_campaign=4775466438-eBrief\\_2019\\_04Feb&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-4775466438-119747501](https://www.unmannedsystemstechnology.com/2020/01/holographic-radar-technology-trialled-for-unmanned-traffic-management/?utm_source=UST+eBrief&utm_campaign=4775466438-eBrief_2019_04Feb&utm_medium=email&utm_term=0_6fc3c01e8d-4775466438-119747501)

### XAG Establishes Five Million Yuan Fund for Drone Disinfection to Fight

**Coronavirus** February 2, 2020 News



It is of greatest concern that the novel coronavirus has spread through more than 20 countries and become a global health emergency. To address the urgent need for strengthening disease prevention measures, a Chinese agriculture technology company XAG announced on Friday that it would set up a 5-million-yuan special fund on coronavirus response, calling for voluntary drone disinfection operations in China, which is hardest hit by the epidemic.



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The fund is committed to providing XAG's agricultural drone users with technical support to properly carry out aerial disinfectant sprays that help curb the spread of virus, especially in rural villages with weaker health systems and poorer sanitation conditions. Operations will target the densely populated outdoor public places and those communities having confirmed or suspected cases of coronavirus. Another focus of applications is intensive cleaning and disinfection of medical and epidemic prevention vehicles moving between affected and unaffected areas.

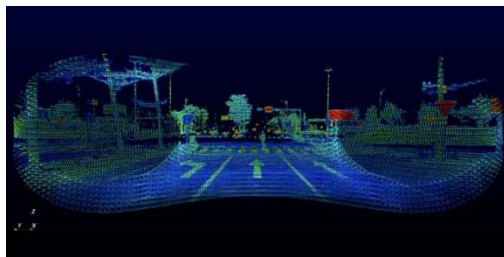
Compared with traditional disinfection approaches conducted by hands or lorry, drones can be directed to spray where it is needed and cover a wider area, helping to improve public hygiene and reducing the risk of virus transmission through surface contact.

In China's Shandong province, XAG's drone fleets were deployed by a crop protection team on 28 January to **disinfect a local community of over 300,000 square meters in less than 4 hours.**

[https://uasweekly.com/2020/02/02/xag-establishes-five-million-yuan-fund-for-drone-disinfection-operation-to-fight-coronavirus-outbreak/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_02\\_03\\_2020&utm\\_term=2020-02-03](https://uasweekly.com/2020/02/02/xag-establishes-five-million-yuan-fund-for-drone-disinfection-operation-to-fight-coronavirus-outbreak/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_02_03_2020&utm_term=2020-02-03)

## DJI and Livox likely to benefit from strong growth in Lidar drone market Haye

Kesteloo Feb. 3rd 2020



[DJI](#) and [DJI's Livox](#) are likely to benefit from strong growth in the Lidar drone market. It is projected to grow from \$133 million in 2020 to \$392 million by 2025; it is expected to grow at a CAGR of **24.2%** from 2020 to 2025 according to [this report](#).

This growth is likely to benefit the world's largest drone manufacturer DJI as well as its subsidiary Livox that specializes in mass-produced Lidar equipment. According to this report, mentioned on [Yahoo Finance](#), the key factors fueling the growth of the market include easing of regulations related to the use of commercial drones in different applications and growing demand for Lidar drones for use in corridor mapping and precision agriculture applications. However, regulations related to the use of drones in different countries are expected to slow down the growth of this market to a certain extent during the forecast period. <https://dronedj.com/2020/02/03/dji-and-livox-likely-to-benefit-from-strong-growth-in-lidar-drone-market/>





## UAS and SmallSat Weekly News

### 9th grader makes award-winning app for disasters called 'HoverOver'

Kesteloo Feb. 4th 2020



Vidya Shah, 14, developed the award-winning HoverOver app that can help first responders identify people who might be in danger.

Here's how the process works. First, she programs the drone. Shah used a DJI Ryze Tello to test the HoverOver app to fly over a certain part of a disaster area and take photos. The photos are then uploaded to the cloud (IBM Watson Machine learning for kids platform) and with help from artificial intelligence software, the photos are screened for people who might be in danger. That information (photo, time stamp, and coordinates) is then passed along to the first responders so that they can easily find and help those in need.



Shah, who is a Williamsville East freshman, submitted the video of the HoverOver app to the Congressional App Challenge and won. Shah started coding while still in 5th grade with help from her parents who manage The Coder School in East Amherst.

For the development of the HoverOver app, Shah won a \$250 Amazon gift card and a trip to Washington, D.C., on March 24 to show her app to federal lawmakers. <https://dronedj.com/2020/02/04/9th-grader-makes-award-winning-app-for-disasters-called-hoverover/>

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### The Pentagon Is Spending Millions on Hunter Drones with Nets

PATRICK TUCKER  
TECHNOLOGY EDITOR FEBRUARY 3, 2020



Shooting drones down over cities isn't ideal. Nabbing them in midair is an intriguing alternative.

The Defense Innovation Unit, or DIU, is contracting with Utah-based Fortem Technologies for its [SkyDome](#) anti-drone system which marries net-armed drones called

DroneHunters with a radar system dubbed TrueView. The SkyDome uses a variety of data sources to make targeting determinations. Once the system detects something, it uses image recognition and AI to classify the object and its intent. "Is it a bird? Is it a drone? Is it a friendly drone or an unfriendly drone?"





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Launched automatically upon detection or at a human's command, the DroneHunter climbs to altitude and uses onboard radar to track the enemy drone. "It can see these drones from hundreds of meters away."

After snaring a drone in its net, the DroneHunter brings it back. Nabbing a drone out of the sky offers a few advantages over attempting to jam it or blowing it up. You avoid bringing laser-riddled drones crashing down on urban crowds. You don't foul up cellular communications networks. And you get more out of forensic analysis, which can show who launched the drone and from where. <https://www.defenseone.com/technology/2020/02/pentagon-spending-millions-dollars-hunter-drones-nets/162835/>

### **New Zealand Ok's Cora eVTOL Passenger Flight Trials** Charles Alcock February 4, 2020



The New Zealand government and Wisk today signed a memorandum of understanding for the Cora electric vertical takeoff and landing aircraft to conduct **autonomous passenger-carrying trial flights** in the city of Canterbury. Wisk, a joint venture between Boeing and Kitty Hawk, has been testing the all-electric

aircraft in New Zealand since 2017 and has logged more than **1,000 flights**.

It is contingent on completing type certification by the New Zealand Civil Aviation Authority. The agreement begins the process through which it will agree the timeline and other arrangements for the flight trials with various government agencies.

Wisk New Zealand is working with the country's Ngai Tahu Maori tribe to support science and technology education initiatives as part of a wider community engagement process. The company also is partnered with flag-carrier Air New Zealand.

In October 2019, the New Zealand government announced an Airspace Integration Trial to demonstrate how unmanned aircraft can be safely operated in unmanned airspace, and it has now selected Wisk as the first industry partner for this program. The program is being managed by the country's Ministry of Business, Innovation, and Employment in conjunction with the CAA and the Ministry of Transport. <https://www.ainonline.com/aviation-news/business-aviation/2020-02-04/new-zealand-oks-cora-evtol-passenger-flight-trials>



## UAS and SmallSat Weekly News

### **Accion Systems raises \$11 million Series B for space propulsion** Jeff Foust February 4, 2020



MOUNTAIN VIEW, Calif. — Space propulsion startup Accion Systems has raised \$11 million in a new round of funding designed to allow the company to increase production of its **electric thrusters for smallsats**.

The Boston-based company said Feb. 4 that Boeing HorizonX Ventures and Shasta Ventures co-led the Series B round. Both companies are returning investors, with Shasta leading Accion's \$7.5 million Series A round in 2016 and Boeing HorizonX making a separate investment in 2018.

The funding will go towards production of its Tiled Ionic Liquid Electrospray thrusters for satellites. Those thrusters use an ionized liquid salt, accelerated by electric fields, to produce thrust. The company argues that this technology, originally developed at the Massachusetts Institute of Technology, can provide safe propulsion options for smallsats with greater efficiency than other electric propulsion options.

"At the size of a postage stamp, our propulsion system is re-writing the rules of smallsat navigation and maneuverability," Natalya Bailey, chief executive of Accion, said in a statement. "We're excited to ramp up production and offer our clients benefits such as extending mission lifetime, stationkeeping, and deorbiting capabilities." The investment brings the total funding raised by Accion to **\$36 million**. <https://spacenews.com/accion-systems-raises-11-million-series-b-for-space-propulsion/>

### **Commercial UAV Expo Americas and Europe make call for industry speakers**

APPLICATION COMMERCIAL UAV EXPO EVENTS HEADLINE NEWS ALEX DOUGLAS FEBRUARY 5, 2020



The two global commercial drone events seek conference presentation applications from industry thought leaders.

Organisers have invited industry experts to submit abstracts on critical issues in the UAS industry by March 11.

They detailed how prospective speakers are invited to submit abstracts on UAS integration and operation related to the following industry segments for drone technology:

- Construction
- Energy & Utilities



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- Forestry & Agriculture
- Infrastructure & Transportation
- Mining & Aggregates
- Public Safety & Emergency Services
- Security
- Surveying & Mapping

Commenting on the news, Lisa Murray, group director at Diversified Communications, said: “We deliver focused content that addresses these issues and connects them with industry experts and first in class solutions providers to help them move forward. We screen submissions for the best and brightest and only the best content will make it onto the program.”

This year, the European event will be co-located with Amsterdam Drone Week. Read the full story [here](https://www.commercialdroneprofessional.com/commercial-uav-expo-americas-and-europe-make-call-for-industry-speakers/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-322932-Commercial+Drone+Professional+DNA+-+2020-02-05): [https://www.commercialdroneprofessional.com/commercial-uav-expo-americas-and-europe-make-call-for-industry-speakers/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-322932-Commercial+Drone+Professional+DNA+-+2020-02-05](https://www.commercialdroneprofessional.com/commercial-uav-expo-americas-and-europe-make-call-for-industry-speakers/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-322932-Commercial+Drone+Professional+DNA+-+2020-02-05)

### Iris Automation selected as detect-and-avoid provider for ZM Interactive

APPLICATION BUSINESS NEWS ALEX DOUGLAS FEBRUARY 5, 2020



ZMI said Iris is the critical missing piece that takes commercial drone operations from theoretical to functional, **by enabling UAS to fly BVLOS.**

The Iris Automation Casia system is a turnkey solution that detects, tracks and classifies other aircraft and makes intelligent decisions about the threat they may pose to the drone. It then triggers automated maneuvers to avoid collisions, and alerts the pilot on the ground in command of the mission.

ZMI manufactures the xFold drone – an industrial, military-grade UAV that comes in a variety of different sizes and configurations. ZMI will provide the option of Casia integrated onto all of its drone platforms.

Combined, the two companies provide customers with an all-in-one package ready for advanced missions, including **safe BVLOS operations.**

<https://www.commercialdroneprofessional.com/iris-automation-selected-as-detect-and-avoid-provider-for-zm->



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[interactive/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-322932-Commercial+Drone+Professional+DNA+-+2020-02-05](https://www.axcelinnovation.com/interactive/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-322932-Commercial+Drone+Professional+DNA+-+2020-02-05)

### Inspection drone with five-hour flight time released [Josh Spires](#) Feb. 5th 2020



Drone maker Skyfront has partnered with Silvus Technologies to [create a drone](#) with a maximum flight time of five hours and an operating distance of **100km**. The new long-range drone will allow operators to [inspect pipelines](#) and other assets as well as conduct long-range surveillance

missions.

[Perimeter 8](#) is [an octocopter](#) with the ability to fly for five hours and travel up to 100km without losing connection from the ground station. Currently, five models of the drone are available for mapping, LiDAR, and medium, long, or extra-long surveillance.

The SteamCaster radio system uses the latest beam-forming technology, spatial multiplexing, and space-time coding to ensure the drone can be controlled in environments in which other radio systems are likely to fail. [SteamCaster](#) comes with SteamScape, a network management interface to allow for key metrics and statistics to be viewed and collected in real time. The system also allows the drone to be overlaid onto a map showing the current location and path of the drone. <https://dronedj.com/2020/02/05/inspection-drone-five-hour-flight-time-released/>

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### FAA denies requests to extend drone remote ID comment period Frank

Jackman Wednesday, February 5, 2020



The Federal Aviation Administration's drone remote identification rulemaking was years in the making, but the agency doesn't want to give industry and drone users extra time to comment on its proposal.

The FAA issued its [remote ID notice of proposed rulemaking](#) in late December and gave the public until March 2 to submit comments. The **319-page proposal** would require nearly all unmanned aircraft systems operating in the U.S. to broadcast or transmit identification information while they are flying. The rule originally was scheduled to be issued last May but did not appear in the Federal Register until Dec. 31.



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In the weeks since the proposal was published, Airlines for America, the Aircraft Owners and Pilots Association, the Academy of Model Aeronautics and the Experimental Aircraft Association, as well as other commenters, requested extensions of the comment period.

A4A, the trade association for U.S. airlines, said it supports a rule requiring remote ID for drones but said more time is needed for A4A and its members to consider the implications of the proposal and respond to the numerous issues it raises.

AOPA, which represents general aviation pilots, said the proposal will impact millions of individual domestic and international aviation stakeholders and that a 60-day comment period with several holidays included is not enough time.

To date, the FAA has received more than **9,300 comments** on the rule, which is seen as an important step in finalizing other rules that would allow drones to operate close to people on the ground and lay the foundation for beyond-visual-line-of-sight operations and unmanned traffic management, all of which are critical to commercial drone usage for package delivery and urban air mobility. <https://www.freightwaves.com/news/faa-denies-requests-to-extend-drone-remote-id-comment-period>

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### **Opportunities grow for smallsat rideshare launches** Jeff Foust February 6, 2020



*Smallsat developers can now book launches directly through SpaceX's website on rideshare missions starting at **\$1 million** for up to 200 kilograms.*

MOUNTAIN VIEW, Calif. — SpaceX disclosed new details about its small satellite rideshare efforts Feb. 5 as it, and other programs like it by large launch vehicle operators, put new pricing pressure on small launch vehicle companies.

SpaceX updated [the website for its smallsat rideshare initiative](#), including creating an online booking system. Customers can see what launches are available for payloads seeking to go to a range of orbits, select a specific launch opportunity and any additional services, like insurance, and then pay a deposit.

Pricing for payloads starts at \$1 million for satellites weighing up to 200 kilograms. That is the same pricing that the company announced in late August, [when it updated the program it](#)



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[rolled out earlier that month. https://spacenews.com/opportunities-grow-for-smallsat-rideshare-launches/](https://spacenews.com/opportunities-grow-for-smallsat-rideshare-launches/)

### South Korea Taking a Major Place in the Global Drone Industry Miriam

McNabb February 07, 2020



*Doosan CEO Doo Soon Lee, African Drone Forum*

At drone shows around the world companies from South Korea (Republic of Korea) have taken a major place – and this week in Rwanda, South Korea’s Ministry of Land, Infrastructure and Transport, the World Bank Group’s Korea Office, and the Korea Green Growth Trust Fund joined global partners to produce this week’s [African Drone Forum](#). At sessions on unmanned traffic management and regulations, aviation officials from the country participated on panels and presented the Korean flight safety regulations.



*African Drone Forum*

Global geospatial experts [Hojung Solutions](#) were a major presence, participating in the [Lake Kivu Challenge](#), flying the unique Remo-M, a Korean-manufactured drone by well-established drone maker Uconsystems, as part of the “Find and Assess” competition; and building partnerships. The company expressed their commitment to participating in the African drone industry: “We are a survey and mapping company using drones – we’ve been working in Africa for more than 6 years. We think the African continent has big potential – it has a growing population, with governments that are committed to investing in drones,” says Munseok Lee, Hojung Solutions CEO. <https://dronelife.com/2020/02/07/south-korea-taking-a-major-place-in-the-global-drone-industry/>