



## UAS and SmallSat Weekly News

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### Second Airbus Zephyr UAS Crashes During A Test Flight October 11, 2019 News



The UAS was being launched from an airstrip in Wyndham, Australia, when the crash occurred. Previously this year another Zephyr crashed after experiencing turbulence on take-off.

Airbus said: "During the ascent, we encountered clear air turbulence and the aircraft departed from controlled flight. There was no damage to people or property, and the aircraft has been recovered.

The Zephyr is designed to provide pseudo-satellite capabilities, with the drone's light weight and 25m wingspan allowing it to stay in the air for extended periods.

Airbus has previously described the capabilities of the drone saying: "It provides persistent surveillance, tracing the world's changing environmental landscape and will be able to provide communications to the most unconnected parts of the world."

The solar-powered drones are designed to provide persistent ISR using the UAS's maximum **45 day flight time**. During tests the drone has so far reached 14-day flight duration. The drone theoretically will save costs involved with traditional unmanned aerial vehicles and fly at an altitude of around **70,000ft**. When operational the drone will be able to carry a 5kg payload.

[https://uasweekly.com/2019/10/11/second-airbus-zephyr-uas-crashes-during-a-test-flight/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_11\\_2019&utm\\_term=2019-10-11](https://uasweekly.com/2019/10/11/second-airbus-zephyr-uas-crashes-during-a-test-flight/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_11_2019&utm_term=2019-10-11)

### Verizon Skyward & Southern Company Conduct BVLOS Testing at NY UAS Test Site October 10, 2019 News



The goal: aid Southern Company in testing drone aircraft and procedures at an active airport as a precursor to long-range beyond visual line of sight (BVLOS) flights that can assist in a variety of tasks, including storm damage assessment and routine power line inspections.

"The work we did at NUAIR was an important first step to operating in the BVLOS world," said Corey Hitchcock, Southern Company's Chief UAS Pilot. "Procedures were developed that will lay



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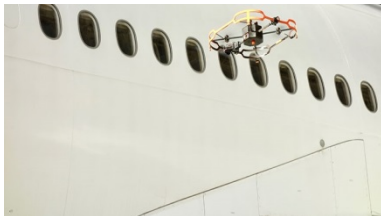
the foundation of safe BVLOS testing and ultimately lead to BVLOS operations in the greater National Airspace System.”

While the companies were all together, Corey deployed one of Southern Company’s Matrice 600 aircraft to demonstrate line pulling. Using the drone, Corey pulled a line over a water obstacle, keeping the line elevated and successfully delivering it to a crew member on the other side.

In the field, Southern uses this process to pull pilot ropes for electrical transmission and distribution lines. During [power restoration](#) efforts following a hurricane in Puerto Rico, Southern used UAS to pull 72,000 feet of rope for conductor wire, **saving weeks or even months of time**. [https://uasweekly.com/2019/10/10/verizon-skyward-southern-company-conduct-bvlos-testing-at-ny-uas-test-site/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_11\\_2019&utm\\_term=2019-10-11](https://uasweekly.com/2019/10/10/verizon-skyward-southern-company-conduct-bvlos-testing-at-ny-uas-test-site/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_11_2019&utm_term=2019-10-11)

## AAR Launches Donecle Drone Technology Integration for MRO Aircraft

**Inspections** October 10, 2019 News



AAR’s Miami MRO facility is the **first** in its global network to use fully automated drone technology to drive operational and cost efficiencies. With laser positioning, the drone can safely perform end-to-end visual inspections of B737 and A320 aircraft in under **an hour**.

“We are very proud to support AAR in its innovations to keep its position as the leading independent MRO worldwide, while also contributing to its digital transformation,” said Josselin Bequet, Donecle CEO and Co-Founder.

Designed for MRO specifications, the drone is programmed to detect any aircraft structural damage, as well as assess paint quality, markings and signs of lightning strike. One complete scan by a drone covers the equivalent of several maintenance tasks and personnel, conserving significant time and resources in the inspection and overall maintenance turnaround time. [https://uasweekly.com/2019/10/10/aar-launches-donecle-drone-technology-integration-for-mro-aircraft-inspections/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_11\\_2019&utm\\_term=2019-10-11](https://uasweekly.com/2019/10/10/aar-launches-donecle-drone-technology-integration-for-mro-aircraft-inspections/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_11_2019&utm_term=2019-10-11)



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### U.K. Should Remain in EASA After Brexit to “Stay Ahead of the Curve” in Drone

**Laws** Miriam McNabb October 11, 2019



A new [report published by the U.K. House of Commons](#) on drones suggests that the U.K. should stay in the European Aviation Safety Agency after Brexit and adopt EASA’s international standards for drone regulation. The report – which is at times critical of the U.K.

Government’s drone policies – also says that the U.K. Government must “stay ahead of the curve” on drones.

“As aviation crosses borders and the use of drones is taking place internationally, it is important that the UK engages in best practice and knowledge sharing with other countries,” says the report. “The Government should continue to pursue its ambition to stay in the European Aviation Safety Agency after Brexit. Further, the Government should seek to secure international agreement on international mandatory standards for drones.”

The detailed report covers all aspects of the drone industry: from recreational flyers to counter UAV strategies. <https://dronelife.com/2019/10/11/house-of-commons-report-says-u-k-should-remain-in-easa-after-brexit-government-needs-to-stay-ahead-of-the-curve-in-drone-laws/>

**13Oct19**

### Chula Vista police have been using drones under a test program run by the FAA

TERI FIGUEROA OCT. 10, 2019



Less than a year after launching its first drone to provide a faster response to calls for help, Chula Vista’s police drone use hit a milestone this week: the **1,000th flight** on missions that have played a role in **130 arrests**.

Drones can follow a fleeing suspect, catch footage of someone tossing evidence or witness a person wielding a weapon. That eye-in-the-sky view allows police to figure out precisely where to go, and what tactics and resources to use. Chula Vista police posted a [highlight video on YouTube](#) showing footage from a drone trailing a woman in a car, as she followed her motorcycle-riding boyfriend and eventually knocked him off the bike. It also includes footage of a fleeing burglary suspect who fell into a pool as officers closed in. The drones are part of a test program run by the Federal Aviation Administration. Last year, the city of San Diego partnered with others in the region — including Chula Vista police — to secure



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one of 10 coveted spots in the pilot program. The goal of the program is to figure out how to safely integrate drones into national airspace. The Chula Vista Police Department is the **only** law enforcement agency in the pilot program. <https://www.sandiegouniontribune.com/news/public-safety/story/2019-10-10/in-less-than-a-year-chula-vista-police-launch-its-drones-1-000>

### The Endless Aerial Surveillance of the Border SIDNEY FUSSELL OCT 11, 2019



Where, exactly, does the border end?

The [same surveillance technologies](#) that Customs and Border Protection and Immigration and Customs Enforcement use to secure the border are also used by local police miles away. The result is **a vast dragnet**, the surface area of which **keeps growing** as the special authority granted to agents in certain areas of the border quietly expands.

The variety of devices being used near the border is astounding. In southwestern communities near the U.S.-Mexico border, the team recorded nearly 230 instances of local police deploying facial-recognition software, cellphone-tracking “sting ray” towers, real-time crime centers, [license-plate cameras](#), gunshot-detecting acoustic-surveillance devices, drones and spy planes. These devices reveal where people travel, as well as whom they call, text, and visit. The tools can also identify people without their knowledge or consent.

Mixing and matching technology provides law enforcement with certain loopholes. Police need a warrant before placing a GPS tracking device on your car but not for querying an LPR database for a list of all your locations. Within [25 miles of the border](#), CBP agents theoretically [operate under qualified immunity](#), empowering them to patrol private lands. Within [100 miles](#) of the border, agents can set up checkpoints and question, search, and potentially detain travelers if they believe they have probable cause.

<https://www.theatlantic.com/technology/archive/2019/10/increase-drones-used-border-surveillance/599077/>

### Drone technology takes Boulder County public safety to new heights KELSEY

HAMMON October 12, 2019



On the roof of a Longmont FirstBank, a suspect on the run from police was at last spotted.

That September night, [a man, who would later be identified as Augustus Cropp, 21](#), rode an ATV through Longmont in an alleged **crime spree**, first



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threatening people with a weapon that would later be determined to be a BB gun. Police said Cropp also attempted to steal a delivery truck, broke into a house and stole clothes and trespassed at the bank, where an employee saw him and called police.

Rather than sending police up to the roof in search of Cropp, Longmont police Sgt. Jason Malterud said they first piloted a drone to the his location to provide a complete picture of the situation. "We actually didn't have to put anybody on the roof, which is very unsafe for the suspect and for us," Malterud said. "We could put the drone up there and look. We saw him and gave him commands. **He complied and came down to us.**"

The high-flying technology has ushered in **a new era** of crime fighting and rescue techniques. With drones at their disposal, authorities have located suspects fleeing from justice, found missing people in the wilderness and been able to capture invaluable information in a short span of time. <https://www.timescall.com/2019/10/12/drone-technology-takes-boulder-county-public-safety-to-new-heights/>

### **Dozens of drones have been spotted near Virginia prisons. At least one was carrying drugs** MARIE ALBIGES THE VIRGINIAN-PILOT OCT 12, 2019



In late August, as security staff was leaving Buckingham Correctional Center, they found **[a small white drone](#)** sitting on the side of the road with a package attached to it. They called Virginia State Police, who found \$500 worth of marijuana, an eight ball of cocaine, a cellphone, three SIM cards and a handcuff key.

That was one of 33 drone sightings near prisons since January 2018, according to Virginia Department of Corrections data. Contraband was found only in one case. But drones have been used increasingly to smuggle drugs and other contraband into correctional facilities as the technology becomes more readily available and affordable, said Phil Pitsky, the vice president of U.S. federal operations for Dedrone, a company that sells drone detection software. [https://www.pilotonline.com/news/vp-nw-drone-sightings-prisons-20191012-oqf2pmyxabfabbfiu26c7jxehy-story.html?utm\\_campaign=top-headlines&utm\\_medium=email&utm\\_source=pilotonline.com&](https://www.pilotonline.com/news/vp-nw-drone-sightings-prisons-20191012-oqf2pmyxabfabbfiu26c7jxehy-story.html?utm_campaign=top-headlines&utm_medium=email&utm_source=pilotonline.com&)





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14Oct19

### The Technology Supporting the UPS Medical Delivery Program Miriam

McNabb October 14, 2019



The [UPS Part 135 Certification](#) made big news last month, as the delivery company announced that it was now certified by the FAA to **scale their drone delivery program beyond their trial sites** in North Carolina. It was another big step for the drone industry, indicating that drone delivery in some form at least was ready to meet the

public in the U.S.

The UPS expertise in developer logistics – as well as their name, size and history – were certainly major considerations in the FAA certification. Equally critical, however, was the technology that supports the program – [Matternet](#)'s M2 system. The company first formed a partnership with the [Swiss postal service back](#) in 2015. They began [medical delivery in Switzerland](#) in 2017. The M2 platform – the drone and the payload box, specially designed to carry fragile payloads, the landing and docking mechanism and all of the supporting technologies – provide a ground-breaking example of how drone delivery can work, meeting the needs of both customers and regulators.

The Matternet M2 system is capable of transporting packages of up to 5 lbs across distances of up to 12.5 miles in operations beyond visual line of sight and over people. It's a complex and complete system, which deals with all aspects of the delivery from securing the samples, dealing with the logistics of keeping track of packages and changing batteries, to delivery and receipt. <https://dronelife.com/2019/10/14/the-technology-supporting-the-ups-medical-delivery-program/>

### Nevada Climbs into Second Highest Rating for Drone-friendly States Jason Reagan

October 14, 2019



The Silver State has been ranked as the second best place for drone business, according to [Business Facilities' 15th Annual Rankings: State Rankings Report](#).

"As the state's designated agency to manage [Nevada's FAA UAS Test Site](#), NIAS is proud to position Nevada as the global leader in

Autonomous Systems deployment and is honored for the state to be ranked in one of two top



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ranking positions in unmanned aerial systems for a second consecutive year,” said Chris Walach, Executive Director of Nevada Institute for Autonomous Systems. **Virginia took the number-one spot this year.**

The NIAS hit the jackpot in September after NASA selected the organization and the Nevada UAS Test Site to participate in a joint study to determine the appropriateness of external ranges to conduct NASA’s [Urban Aerial Mobility Grand Challenge Series](#). The UAM series will demonstrate airspace system architecture based on NASA’s UTM paradigm.

<https://dronelife.com/2019/10/14/nevada-climbs-into-second-highest-rating-for-drone-friendly-states/?ai-debug=0>

**Check out these amazing drone light shows from Firefly [video]** Haye Kesteloo Oct. 14th 2019



Check out the company Firefly from Detroit that creates the most stunning drone light shows. The shows are highly choreographed, are 100% customizable, and are totally worth watching.

Firefly flies their drones right next to a busy road during their practice sessions, and it makes you wonder how many drivers would have called in UFO sightings after seeing these amazing drone light shows.

The company has been organizing drone light shows for some time now, but after seeing this video, I wanted to make sure that we would cover the company on *DroneDJ*. Up till now, we have shown you the stunning drone light shows from companies like Intel and eHang, but after watching these videos, I would argue that Firefly is a top contender as well. Watch these videos if you have a few minutes this morning and let us know what you think!

<https://dronedj.com/2019/10/14/amazing-drone-light-show-firefly/>

**Fully autonomous drones developed by Scottish scientists to aid offshore industry** APPLICATION NEWS UK PATRICK CREMONA OCTOBER 14, 2019



The fully autonomous drones are being developed by the Offshore Robotics for Certification of Assets hub (Orca) in a multi-million pound project.

The drones go further than most that are used for inspection offshore, with the robot able to attach itself to vertical surfaces and





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also possessing a robotic arm.

In addition to being able to fly out and inspect a wind turbine, the drone will be able to deploy a sensor and possibly carry out a repair.

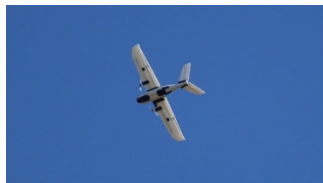
This robot, which has been produced by the company ANYbotics, has four legs, as opposed to wheels and is therefore also **able to walk**.

“So robots that crawl, that have legs and can walk, they can go places on the platform that other robots wouldn’t be able to.” “But what’s important is transparency, so that the operator understands what the robot is doing and why, and we’re trying to get the robots to be **explainable** so they can explain their behavior to the operator.”

[https://www.commercialdroneprofessional.com/fully-autonomous-drones-developed-by-scottish-scientists-to-aid-offshore-industry/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-314507-Commercial+Drone+Professional+DNA+-+2019-10-14](https://www.commercialdroneprofessional.com/fully-autonomous-drones-developed-by-scottish-scientists-to-aid-offshore-industry/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-314507-Commercial+Drone+Professional+DNA+-+2019-10-14)

## Vigilant Aerospace Demonstrates FlightHorizon 2 in Autonomous 18-Mile Flight

October 12, 2019 News



Oklahoma State University and Vigilant Aerospace Systems conducted a demonstration flight utilizing OSU’s 13-mile beyond visual line-of-sight corridor east of Stillwater, Oklahoma. The demonstration was used to evaluate BVLOS capabilities and to demonstrate Vigilant’s latest FlightHorizon software which provided airspace situational awareness throughout the flight.

The flight was the **first** full exercise of the FAA-authorized 13-mile unmanned aircraft system flight corridor located in central Oklahoma. The flight was also a major field test for [FlightHorizon 2](#), the latest version of Vigilant Aerospace’s unmanned traffic management and **active** detect-and-avoid system.

The **completely autonomous** flight was over 18-miles starting at OSU’s Center for Forensics Explosives range near Pawnee, Oklahoma and culminating in an autonomous landing at OSU’s Unmanned Aircraft Flight Station in Glencoe, Oklahoma.

“The unmanned aircraft industry’s top needs continue to be autonomous safety systems, on-board detect-and-avoid solutions and better unmanned traffic management. This flight allowed us to make progress on all three by demonstrating our system’s capabilities over a much longer



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duration and greater distances while providing active alerting and airspace visualization to the pilot and observers,” said Kraettli L. Epperson, CEO of Vigilant Aerospace.

[https://uasweekly.com/2019/10/12/vigilant-aerospace-demonstrates-flighthorizon-2-in-autonomous-18-mile-flight-with-oklahoma-state-university/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_14\\_2019&utm\\_term=2019-10-14](https://uasweekly.com/2019/10/12/vigilant-aerospace-demonstrates-flighthorizon-2-in-autonomous-18-mile-flight-with-oklahoma-state-university/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_14_2019&utm_term=2019-10-14)

### New Puma Long-Endurance UAS Launched 15 Oct 2019



[AeroVironment](#) has announced that it has launched the Puma LE (Long Endurance), the next generation of its Puma All Environment family of small UAS. The Puma LE improves on the battlefield-proven Puma AE with new capabilities, increased range, and expanded payload capacity.

The Puma LE features an integrated Mantis i45 gimbaled EO/IR sensor and NVG-visible laser illuminator for high-performance intelligence, surveillance, and reconnaissance at any time of day or night, over land or in maritime environments. The UAV weighs 22.5 pounds and can carry a payload of up to 5.5 pounds. Launched by hand or with a bungee launcher, it is capable of **5.5 hour** flight endurance, and can be operated at a range of up to 60km with AeroVironment’s Long-Range Tracking Antenna.

[https://www.unmannedsystemstechnology.com/2019/10/new-puma-long-endurance-uas-launched/?utm\\_source=Unmanned+Systems+Technology+Newsletter&utm\\_campaign=59a7f1133c-eBrief\\_2019\\_15\\_Oct&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-59a7f1133c-119747501](https://www.unmannedsystemstechnology.com/2019/10/new-puma-long-endurance-uas-launched/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=59a7f1133c-eBrief_2019_15_Oct&utm_medium=email&utm_term=0_6fc3c01e8d-59a7f1133c-119747501)

### Acecore Develops Professional Heavy-Lift Drones 14 Oct 2019

[Acecore Technologies](#) has partnered with Unmanned Systems Technology to take drone broadcasting, cinema, inspection, security and surveying applications to the next level.



[Neo](#) is a heavy-lift multirotor drone with eight motors designed to handle bulky cameras and payloads for applications such as film-making, aerial surveying, SAR, security and inspections. It features a modular Cube autopilot and Futaba radio controller.

Neo’s carbon fibre body and weather-proofed design has a payload capacity of **19.8 lbs.**

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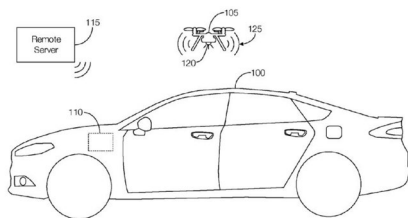


[Zoe](#) has a foldable design for easy transportation and deployment. It has a maximum payload capacity of 4.3 lbs and flight times of up to 40 minutes. The all-weather construction and carbon fiber design make Zoe a highly dependable system, even in winds of up to **35 knots**.

[https://www.unmannedsystemstechnology.com/2019/10/acecore-technologies-develops-professional-heavy-lift-drones-gimbals/?utm\\_source=Unmanned+Systems+Technology+Newsletter&utm\\_campaign=59a7f1133c-eBrief\\_2019\\_15\\_Oct&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-59a7f1133c-119747501](https://www.unmannedsystemstechnology.com/2019/10/acecore-technologies-develops-professional-heavy-lift-drones-gimbals/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=59a7f1133c-eBrief_2019_15_Oct&utm_medium=email&utm_term=0_6fc3c01e8d-59a7f1133c-119747501)

### Ford patents drone that flies out of trunk in case of an emergency [Haye Kesteloo](#)

Oct. 15th 2019



[Ford](#) has patented a drone that can fly directly from the vehicle to perform security and emergency aid functions. The drone is a quadcopter design and can be programmed and customized.

It is not the first time that we have seen interest in drones by Ford. More than a year ago, Ford presented a [drone ID system](#) by using the LEDs on the unmanned aircraft. Later, Ford wondered whether people would like to have a [drone to go with their F150](#). And now Ford is researching the idea of using drones as part of an emergency response system.

As a result, Ford has proclaimed its interest in new approaches to “mobility,” which includes unmanned aircraft. In [Ford’s patent](#) from October 10 that was filed with the US Patent and Trademark Office, one can see an illustration of a quadcopter that is designed to perform security and emergency aid functions. The patent informs us that the drone can be stored and charged in the trunk of the car. The drone can follow the car as it drives down the road, or it can signal the location of the vehicle to emergency services in case of an accident or malfunction.

Recently we saw an [Audi that used multiple drones to guide the way](#). In another example, we saw Porsche showing a drone taking off directly from the trunk of one of their concept sports cars. <https://dronedj.com/2019/10/15/ford-patents-drone/#more-20260>



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### **BREAKING NEWS: This New Drone Bill Would Make the Airspace over Homes Private Property** Miriam McNabb October 15, 2019



A new proposal scheduled to be released from the office of Senator Lee (R-Utah) tomorrow would put the airspace up to **200 feet** in altitude over private property under the control of the property owner – and would restrict the FAA's right to regulate airspace below 200 feet in altitude, making any zoning or regulatory decisions the right of the state or tribal

entity governing the land.

The bill seeks to clarify and control two significant legal issues that remain unresolved: 1) Establish the airspace to 200 feet in altitude above private property as under the exclusive control of the property owner; and 2) Establish state, tribal and local governments as having exclusive and absolute rights to regulate that airspace.

The bill tackles two thorny issues that the drone industry has seen before. At the heart of both issues is the question of preemption: the idea that the FAA regulates all of the airspace, from the ground up.

The bill will propose that state, local and tribal governments may establish zoning for takeoff and landing zones – and charge fees if they want. The proposal addresses drone delivery, unmanned traffic management and safety standards. It's a bill that could have a very significant impact on the commercial drone industry and the recreational drone community.

<https://dronelife.com/2019/10/15/breaking-news-this-new-drone-bill-would-make-the-airspace-over-peoples-homes-private-property/>

**16Oct19**

### **SpaceX submits paperwork for 30,000 more Starlink satellites** Caleb Henry October 15, 2019



WASHINGTON — SpaceX, which is already planning the world's largest low-Earth-orbit broadband constellation by far, filed paperwork in recent weeks for up to 30,000 additional Starlink satellites on top of the 12,000 already approved by the U.S. Federal Communications



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Commission.

The FCC, on SpaceX's behalf, submitted 20 filings to the International Telecommunication Union for 1,500 satellites apiece in various low Earth orbits. SpaceX deployed its first 60 Starlink satellites in May and plans to launch hundreds — potentially over a thousand — more in the year ahead.

SpaceX's ITU filings contain details about frequency usage, proposed orbital altitudes, and the number of satellites it desires. The filings do not say when SpaceX hopes to launch the satellites, or other details such as spacecraft throughput and deorbit timelines.

ITU filings are an early step in deploying a satellite system, and are often made **years before** a company plans to build launch spacecraft. SpaceX will be required to disclose more details about its constellation when applying with the FCC for access to the U.S. market to offer broadband services, like it did with the 12,000-satellite constellation it began launching in May.

In its filings, SpaceX said the additional 30,000 satellites would operate in low Earth orbit at altitudes ranging from 328 kilometers to 580 kilometers. <https://spacenews.com/spacex-submits-paperwork-for-30000-more-starlink-satellites/>

### Valkyrie UAS Successfully Undertakes Third Test Flight 14 Oct 2019



[Kratos Defense & Security Solutions](#) has announced that, in conjunction with the U.S. Air Force Research Laboratory, it has successfully completed the third test flight of the XQ-58A Valkyrie unmanned aerial system. The aircraft is designed to be a **stealth** platform that supports manned fighter aircraft by providing surveillance, fire support and other functions.

The 90-minute test flight saw the aircraft execute a perfect launch, meet 56 of 56 baseline test points and gain two additional test points with excess fuel remaining at the end of the mission. The recovery parachute system worked as expected, with the aircraft descending to the ground under the canopy system at the end of the mission.

<https://www.unmannedsystemstechnology.com/2019/10/valkyrie-uas-successfully-undertakes-third-test-flight/>



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### London-based brothers create drone game to “shake up” consumer drone experience

BUSINESS NEW PRODUCTS PATRICK CREMONA OCTOBER 16, 2019



Drone Run, created by Alex and Toby Liew, is a flying game that keeps drone flying low to the ground and in line of sight so that players don't have to worry about breaking any rules.

The skill-developing game includes responsive landing and checkpoint challenges for beginner to professional drone pilots seeking an extra use for their drones.

Comprised of a drone landing pad and responsive sensor checkpoints, Drone Run, the founders say it “adds a fun yet competitive spin on the drone flying experience that unlocks a previously unexplored area of flight.”

“We’re not saying every drone owner needs training, in fact, the vast majority of drone pilots are completely responsible and operate their drones in accordance to the Drone Code, but to such drone owners, Drone Run breathes a new and thrilling lease of life into their expensive pieces of kit.” On top of beautiful aerial cinematography, why not test your skills with Drone Run for times there aren’t beautiful things to film?’

Drone Run is launching its products with discounts on Kickstarter, with its new products expected to deliver by early next year, providing the campaign has been successfully funded. [https://www.commercialdroneprofessional.com/london-based-brothers-create-drone-game-to-shake-up-consumer-drone-experience/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-314748-Commercial+Drone+Professional+DNA+-+2019-10-16](https://www.commercialdroneprofessional.com/london-based-brothers-create-drone-game-to-shake-up-consumer-drone-experience/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-314748-Commercial+Drone+Professional+DNA+-+2019-10-16)

### Man paralyzed since age of 15 claims drone has given him new perspective on life

PEOPLE PATRICK CREMONA OCTOBER 16, 2019



James Bedding fell from a sea wall 22 years ago, suffering a serious spinal injury which left him quadriplegic.

Over the past four years, he has developed a passion for drones that he says helps him access places his body won't let him.

“It’s massive for me. One thing I really miss is surfing; I used to love surfing when I was young. Now I can fly the drone out there and see people waiting for a wave like I used to. The drone





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lets me get out and about and see different places. Even if it's rough terrain, I can get there and fly up to it."

Bedding uses a regular drone controller at the front of his wheelchair with specially-made grooves added to the thumb controls, allowing him to move them using a pointer that he puts in his mouth. He has become a licensed commercial drone pilot, being awarded his license in July after months of training and practical tests.

He also hopes to set up a company allowing him to sell the photos he takes, which he will call **Quad Photography**, a play on words based on the fact that the DJI Mavic Pro he uses is a quadcopter and that he is quadriplegic. [https://www.commercialdroneprofessional.com/man-paralysed-since-age-of-15-claims-drone-has-given-him-new-perspective-on-life/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-314748-Commercial+Drone+Professional+DNA+-+2019-10-16](https://www.commercialdroneprofessional.com/man-paralysed-since-age-of-15-claims-drone-has-given-him-new-perspective-on-life/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-314748-Commercial+Drone+Professional+DNA+-+2019-10-16)

### **The Skydio 2 Dock: Beyond a Drone in Box** Malek Murisonon: October 16, 2019



The Dock is designed to provide a **persistent drone presence** that will be ideal for worksites that require regular mapping missions or inspections.

Inside is a special battery that has contacts on the bottom to wirelessly charge the drone. The Dock opens and closes like a CD changer using robotic actuation, and the drone finds its way home using visual fiducials, so it's not dependent on GPS.

Skydio intends for the Dock to be a key part of integrating the new drone into enterprise workflows. DroneDeploy will be among the first to use Skydio's SDK to automate mapping missions through the new base station, which includes a Wi-Fi- and Ethernet-connected computer to transfer data after each flight.

A statement from the company says that combining persistence with industry-leading autonomy has the potential to increase the return on investment of drone programs ten-fold.

Fully autonomous flights are still widely restricted by industry regulators. But this could be a significant step and is worth keeping an eye on – particularly as waivers are becoming easier to come by, and Part 107 rules are set to evolve in the future.



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Skydio has not yet revealed pricing information for the new Dock. Interested parties are being asked to contact the manufacturer directly. <https://dronelife.com/2019/10/16/the-skydio-2-dock-aims-to-make-fully-autonomous-workflows-a-reality/>

### XAG Drone Fleets Take Off for Large-scale Cotton Defoliation Operation in Xinjiang

October 15, 2019 News



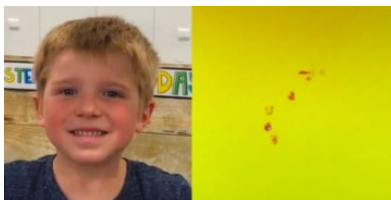
As a global leading agriculture technology company, XAG has initiated its Unmanned Aerial System spraying operation – “Take Off for Harvest Time” for the third consecutive year in China’s Xinjiang Uygur Autonomous Region. Since late August, over **1500 drone pilots** and **1000 crop protection teams** with approximately **3000** sets of XAG P Series Plant Protection **UAS** have convened in Xinjiang to help local cotton growers spray defoliant and boost crop yields.

This is the **world’s largest** cotton defoliation operation that involves the use of fully autonomous drones to ensure a cost-effective, eco-friendly machine harvest. Up to mid-September, one million hectares of cotton fields have been defoliated with XAG’s crop spraying drones. It is estimated that the accumulated service record of this year’s operation will exceed **1.3 million hectares, a 200% increase** compared to 2018 when XAG served approximately 0.45 million hectares.

Defoliation is the harvest-aid operation which applies chemical to accelerate cotton boll opening and encourage cotton leaves to drop from plants within a specific short period time. It is a necessary process to ensure timely, intensive mechanical harvesting and reduce impurities in cotton fiber. [https://uasweekly.com/2019/10/15/xag-drone-fleets-take-off-for-large-scale-cotton-defoliation-operation-in-xinjiang/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_16\\_2019&utm\\_term=2019-10-16](https://uasweekly.com/2019/10/15/xag-drone-fleets-take-off-for-large-scale-cotton-defoliation-operation-in-xinjiang/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_16_2019&utm_term=2019-10-16)

### DJI M210 with thermal camera finds missing 6-year-old boy in dark cornfield

Haye Kesteloo Oct. 16th 2019



A **DJI M210** with a thermal camera helped find a missing 6-year-old boy in dark cornfield near Becker, Minnesota. The boy, named Ethan, was found safe early Wednesday morning after more than **600 volunteers** had participated in the search. It was, however, a volunteer with the DJI Matrice 210 with a



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thermal camera who spotted the missing boy.

The drone pilot with a thermal camera found Ethan in a **cornfield that had already been searched**. *"If not for that drone, I'm not sure we would have found him," Sherburne County Sheriff Joel Brott said.*

Ethan was found at around 1:50 a.m. Wednesday morning, about 1.5 miles from his home. Police officials reported that he was cold but otherwise ok. Ethan was checked at the local hospital. Temperatures had dropped to the low 40s overnight on Tuesday.

WCCO-TV reports that the drone pilot, Steve Fines, said that he'd never used a drone in a search operation before. *"It was a moment that was going to make his parents so happy, and vicariously we all felt that," Fines said.* <https://dronedj.com/2019/10/16/dji-m210-with-thermal-camera-finds-missing-6-year-old-boy-in-dark-cornfield/>

## ATA Unveils LOCUST Laser Weapon System for Detecting And Mitigating UAS Threats

October 16, 2019 Counter UAS



ATA unveiled LOCUST, a Low-Cost Counter-Unmanned Aerial System for Targeting, at the 2019 Counter UAS Summit in August and will showcase LOCUST at AUSA's Annual Meeting and Exposition, October 14-16, 2019 in Washington D.C. LOCUST will also be participating in U.S. government field experiments in

October and November.

LOCUST was designed from the ground-up to provide a capable and cost effective defense against low cost asymmetric unmanned aerial system threats. It detects and identifies UAS threats using active and passive radio frequency and electro-optical infrared sensor subsystems, and it negates the threats using intelligent electronic attack and high energy lasers.

It delivers a layered detection and identification capability in a fixed emplacement or on a mobile platform with shoot-on-the-move capability. It is designed for installation on military or commercial platforms to defeat UAS and intelligence, surveillance, and reconnaissance threats as well as provide ISR capability. It can be rapidly inserted into integrated battle management, command, and control architectures as well. [https://uasweekly.com/2019/10/16/ata-unveils-locust-laser-weapon-system-for-detecting-and-mitigating-uas-threats/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_17\\_2019&utm\\_term=2019-10-17](https://uasweekly.com/2019/10/16/ata-unveils-locust-laser-weapon-system-for-detecting-and-mitigating-uas-threats/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_17_2019&utm_term=2019-10-17)



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### EHang and Azerbaijan Airlines to Establish UAV Command-and-Control Center

October 16, 2019 News



EHang, the world's leading autonomous aerial vehicle technology platform company, announced that it has signed an agreement with Azerbaijan Airlines to establish a command-and-control center to manage unmanned aerial vehicles at Heydar Aliyev International Airport in Baku, Azerbaijan.

The command-and-control center will allow Azerbaijan Air Navigation Services, the air navigation services provider for the Republic of Azerbaijan, to control UAV traffic on the airport's premises and prevent the unauthorized use of UAVs. It will be fully integrated with the Azerbaijani air traffic control system.

The command-and-control center will also equip AZANS with technologies including 3D mapping and terrain scanning to support airfield design and aerial navigation map development. A future web application could include UAV and pilot registration information, certification documents and permissions for flight procedures. As part of the agreement, EHang will also train UAV specialists at the National Academy of Aviation of Azerbaijan and build a UAV management simulator complex. [https://uasweekly.com/2019/10/16/ehang-and-azerbaijan-airlines-to-establish-uav-command-and-control-center/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_10\\_17\\_2019&utm\\_term=2019-10-17](https://uasweekly.com/2019/10/16/ehang-and-azerbaijan-airlines-to-establish-uav-command-and-control-center/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_10_17_2019&utm_term=2019-10-17)

### UAVs Bring the Next Generation of Energy Infrastructure Inspection with BVLOS

**Flight** OCTOBER 17, 2019 Michael Hartnack



"Housed in a large boxlike structure at the base of a transmission tower, a hexacopter drone powers up and begins its 2-hour, 20-mile, one-way inspection journey. Powered by a rechargeable battery, the hexacopter flies above the line structure and begins capturing still imagery, thermal imagery, and a video stream of the transmission

tower and line. The drone streams this data in real-time over a secure connection to the utility's asset management platform. The unmanned aerial vehicle is programmed to inspect the line as it flies, but also to stop and capture visual and sensory data for transmission tower assets such as insulators and conductors. Equipped with a GPS guiding system, the drone flies along a pre-mapped route, and lands in a docking station at the end of the route. The powered docking



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station can either keep the drone for recharging, or use a robotic mechanism to change the drone's battery and send it on to the next stretch of line for inspection."

The scenario above is just one example of what the future may look like for long-distance energy infrastructure inspection and asset management. Around much of the world, technology experts, regulators, UAV companies, and other interest groups are working through the benefits and challenges of allowing utilities and energy infrastructure asset owners to use beyond visual line-of-sight (BVLOS) for drone inspection operations. Some say the benefits are clear, with significant cost savings to be passed onto utilities, and in turn ratepayers. Others argue that such autonomy exposes networks to both physical and cybersecurity threats.

In 2018, Xcel Energy became the first utility in the US to be granted permission to fly a BVLOS operation for transmission line inspection. NextEra Energy and Dominion Energy are the only other utilities to be granted BVLOS permission in the USA, [according to the FAA](#).

[https://www.commercialuavnews.com/infrastructure/uavs-energy-infrastructure-inspection-bvlos?utm\\_source=marketo&utm\\_medium=email&utm\\_campaign=newsletter&utm\\_content=newsletter&mkt\\_tok=eyJpIjoiT1dNMU5qYzRObVpqTkdSaSlInQIOiJEEdHpZR1dCVDVUV0pLUXBIZUMybzIWRzkzYkx0eFkrWHZFMzBTVVJMdGIzMET3V2N3ZlIiIlVV09wTk5EdVNDemJwOG5vN1dhUDJDZFCQjIjcXoxRnZOcjJlbnYrWWhkRHZcLytkZG9wN0ZlZVdNUVQzOU1LT2dROXpmQWU1dE0ifQ%3D%3D](https://www.commercialuavnews.com/infrastructure/uavs-energy-infrastructure-inspection-bvlos?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiT1dNMU5qYzRObVpqTkdSaSlInQIOiJEEdHpZR1dCVDVUV0pLUXBIZUMybzIWRzkzYkx0eFkrWHZFMzBTVVJMdGIzMET3V2N3ZlIiIlVV09wTk5EdVNDemJwOG5vN1dhUDJDZFCQjIjcXoxRnZOcjJlbnYrWWhkRHZcLytkZG9wN0ZlZVdNUVQzOU1LT2dROXpmQWU1dE0ifQ%3D%3D)

## Drone Fund Showcases Numerous Innovative UAS Solutions from Japan OCTOBER 13, 2019 Jeremiah Karpowicz



Drones are being used in the United States and in Europe in applications that range from collision scene reconstruction all the way to reducing costs and increasing safety while repairing infrastructure.

However, these aren't the only industries or regions where the technology is making a difference.

Companies in Japan are actively exploring how drones will work for disaster response, but that's just a hint at how various companies are planning to utilize drones across the country and eventually the world.

Drone Fund is a VC fund dedicated exclusively to exploring and enabling these types of solutions by investing in companies specializing in hardware, software, DaaS, SaaS, and drone-enabling technology solutions. Drone Fund has 30 portfolio companies, each of which has a specialized and distinct solution. To briefly illustrate these distinctions, one company ([FULLDEPTH](#)) has an underwater drone while another ([A.L.I Technologies](#)) specializes in A.I. tech



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and hover bikes. There are significant differences between all of them, but what they all have in common is innovative technology, strong leadership and a sense of cooperation that has them working towards a drone-enabled, future society.

[https://www.commercialuavnews.com/forestry/drone-fund-uas-solutions-japan?utm\\_source=marketo&utm\\_medium=email&utm\\_campaign=newsletter&utm\\_content=newsletter&mkt\\_tok=eyJpIjoiT1dNMU5qYzRObVpqTkdsSaSIsInQiOiJEdHpZR1dCVdVUV0pLUXBIZUMyb2IWRzkzYkx0eFkrWHZFMzBTvVJMdGlzMEt3V2N3ZXIiIiV09wTk5EdVNDemJwOG5vN1dhUDJDZlVVCQjJlXoxRnZOcjJlbnYrWWhkRHZClytkZG9wN0ZJZVdNUVQzOU1LT2dROXpmQWU1dE0ifQ%3D%3D](https://www.commercialuavnews.com/forestry/drone-fund-uas-solutions-japan?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiT1dNMU5qYzRObVpqTkdsSaSIsInQiOiJEdHpZR1dCVdVUV0pLUXBIZUMyb2IWRzkzYkx0eFkrWHZFMzBTvVJMdGlzMEt3V2N3ZXIiIiV09wTk5EdVNDemJwOG5vN1dhUDJDZlVVCQjJlXoxRnZOcjJlbnYrWWhkRHZClytkZG9wN0ZJZVdNUVQzOU1LT2dROXpmQWU1dE0ifQ%3D%3D)

18Oct19

### DoD May Fund Rare Earth & Small Drone Development: Lord THERESA HITCHENSON October 17, 2019

While the US is standing fast on its removal of Turkey from the F-35 program, DoD Acquisition czar Ellen Lord says there no decision has been made yet about FMS sales.



COMDEF 2019: DoD acquisition czar Ellen Lord says DoD may fund allies and industry to ensure access to rare earth minerals and **reinvigorate the small drone industry** to patch holes in the industrial base, both currently dominated by China

"We're going out on the offense," Lord told the annual ComDef conference on international defense cooperation today, "because it is necessary to have defensive measures, but it's not sufficient to overcome what we are seeing, especially from China." She added that it is "no secret that they will use any means necessary to gain advantage over the United States," she said, including intellectual property theft and "blatantly stealing information."

Lord said that US partners in the National Technology and Industrial Base initiative would be crucial to blocking Chinese use of trade as a weapon. She noted that the group met in September to discuss ways forward. <https://breakingdefense.com/2019/10/dod-may-fund-rare-earth-small-drone-development-lord/>