



UAS and SmallSat Weekly News

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How Do I Carry My Drone on a Plane? FAA Clarifies LiPO Battery Policies Miriam

McNabb March 01, 2019



The FAA and U.S. DOT have [clarified the travel policy](#) for LiPO batteries – something that drone flyers need to know before traveling.

Lithium ion batteries carry a risk of fire – [incidents reported](#) to the FAA show that some problem comes up at least a couple of times a month. But as it may be more difficult for an airplane crew to deal with a fire when it is in the cargo hold, passengers are required to **carry the batteries with them in the cabin**. “This rule will strengthen safety for the traveling public by addressing the unique challenges lithium batteries pose in transportation,” said U.S. Secretary of Transportation Elaine L. Chao.

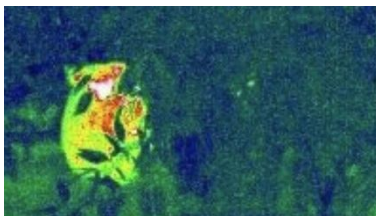
“This IFR prohibits the transport of lithium ion cells or batteries as cargo on passenger aircraft. In addition, the IFR requires lithium ion cells and batteries to be shipped at not more than a 30 percent state of charge aboard cargo-only aircraft,” says the DOT notice.

The full text of the interim final rule (IFR) can be downloaded [here](https://dronelife.com/2019/03/01/how-do-i-carry-my-drone-on-a-plane-faa-clarifies-lipo-battery-policies/). <https://dronelife.com/2019/03/01/how-do-i-carry-my-drone-on-a-plane-faa-clarifies-lipo-battery-policies/>

3Mar19

Australia: Infrared-equipped drones better at spotting koalas than humans March

3, 2019 Feilidh Dwyer



The new surveying technique involves flying drones equipped with infrared cameras over bushland areas containing koalas. The research team from Queensland University of Technology developed an algorithm that identifies the unique heat signature emitted by the fuzzy marsupials. Koalas love to feast on eucalyptus trees and generally hang out beneath the forest canopy making normal aerial surveying difficult. The infrared cameras are able to see through the canopy and conduct surveys by passing up and down over a specific area of the bush in what is referred to as a “lawnmower pattern.”



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When drone surveys of populations were tested against that from specially-trained human spotters, **drones came out on top**. Whereas humans are able to spot 70 percent of koalas in a given area, drone surveys achieved an 86 percent spot rate. Drones are also much faster: a UAV will take **a couple of hours** to survey an area that might take a human **all day** to do.

Koalas enjoy iconic status as a cuddly, chilled out Australia bear. Unfortunately, factors like climate change and habitat destruction have them facing population declines. Conservations, therefore, need accurate population information to ascertain where best to apply their limited resources to sustain Australia's koala population.



This method was first trialed in 2016 and after finding success over the past few years, it is likely to be used in other areas of Australia. The researchers behind this project have indicated that there will continue to be a role for human and dog koala spotters in the future because there are some areas not practical for a drone to

access. <https://www.wetalkuav.com/australia-infrared-drones-help-spot-koalas/>

4Mar19

Weapon Makers Declare War on Drones Robert Wall March 3, 2019



Arms makers are targeting the growing menace of drones at airports and on battlefields with a rush to develop new missile systems, radar jammers and laser cannons. The anti-drone market should exceed **\$1.2 billion** in annual sales next year and top \$1.5 billion in 2021, Frost & Sullivan estimated.

[Lockheed Martin](#) Corp, the Pentagon's biggest weapons maker by sales, last month teamed with Germany's Diehl

Defence GmbH and Sweden's Saab AB to sell a system for taking down drones, aircraft and missiles. It uses missiles to shoot down larger drones, while its radar also can spot smaller ones. The companies are trying to sign the United Arab Emirates as a launch customer for the project.

Singapore's ST Engineering Electronics Ltd. sells a 6.6-pound radar gun powered by a 24-pound battery backpack that can jam a drone's GPS signal and disrupt the radio link to its operator.

Diehl Defence, has developed a system to fire electronic bursts at a drone to fry its electronics. It has a range of more than 0.6 miles and comes in a smaller, civil version with about half that range.



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[Boeing](#) Co. in 2015 used a laser to shoot down a small drone, and it has since delivered such equipment to the U.S. Army. Boeing says the system, demonstrated with up to 10 kilowatt of power, functions like a welding torch that can heat up a target hundreds of yards or more away.

China has developed a truck-mounted laser. State-owned Poly Technologies Inc. says its system has a range of up to 4 kilometers in its high-power version. So far, **no technology** has emerged as **a clear winner**. <https://www.wsj.com/articles/weapons-makers-declare-war-on-drones-11551627000>

SkyX eyes expansion with new Houston office BUSINESS NEWS ALEX DOUGLAS MARCH 4, 2019



Didi Horn, CEO and chairman, said: "In the last few months, SkyX has experienced a growing demand from the oil and gas industry regarding our solution for long-range asset monitoring.

"As a result, having an office in Houston will allow us to respond to the complex challenges faced by the industry." The company will also open a test facility in the area to provide live demonstrations.

The facility will allow the company to showcase its unique capabilities such as providing visual verification data to assist operators in better managing issues such as corrosion, leak detection and right-of-way activity. https://www.commercialdroneprofessional.com/skyx-eyes-expansion-with-new-houston-office/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-293949-Commercial+Drone+Professional+DNA++2019-03-04

Sentera delivers on customer requests with update to PHX Fixed-Wing drone

BUSINESS INTERNATIONAL MANUFACTURER NEW PRODUCTS NEWS ALEX DOUGLAS on MARCH 4, 2019



It has now been equipped with a new, longer-range high-speed datalink, an omnidirectional antenna system, and an upgraded, higher-capacity battery.

When in-flight, the PHX supplies live HD video, still images and live analytics, including stand counts, weed locations and plant health. Our focus is on user productivity, cost-per-acre, and operational simplicity. PHX is already known as a phenomenally efficient, rugged platform. These changes widen the gap, with extended range, endurance, and faster time-to-launch.

The complete Ag scouting systems start at **\$8,499**.

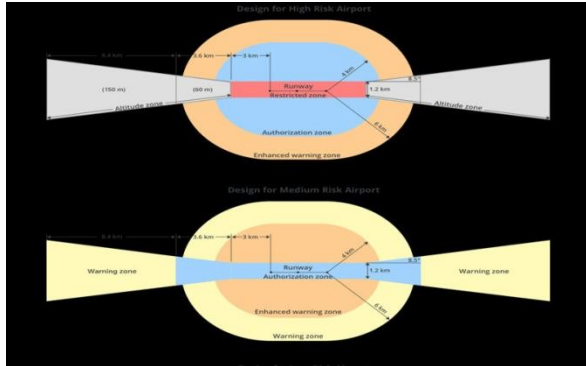
<https://www.commercialdroneprofessional.com/sentera-delivers-on-customer-requests-with-update-to-phx->



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[fixed-wing-drone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-293949-Commercial+Drone+Professional+DNA++2019-03-04](https://www.commercialdroneprofessional.com/dji-expands-geofencing-improvements-into-asia-pacific-airports/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-293949-Commercial+Drone+Professional+DNA++2019-03-04)

DJI expands geo-fencing improvements into Asia-Pacific airports APPLICATION HEADLINE NEWS INTERNATIONAL TECHNOLOGY ALEX DOUGLAS MARCH 4, 2019



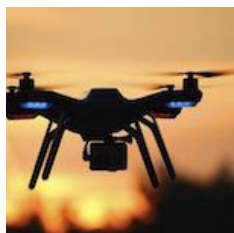
The new system creates a detailed three-dimensional 'bow tie' safety zone surrounding runway flight paths rather than just simple circles used in earlier geo-fencing versions.

The new system aims to better reflect the actual safety risk posed in those areas and is more flexible in lower-risk areas.

Adam Welsh, DJI's head of Asia Pacific public police, added: "DJI pioneered geo-fencing for drones, as well as automatic altitude limitations, obstacle avoidance systems and various other initiatives that promote safe drone operations."

DJI's GEO 2.0 system is now live and will cover Australia, Bangladesh, Bhutan, Brunei, Cambodia, Hong Kong, India, Indonesia, Japan, Laos, Macau, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Thailand and Vietnam. https://www.commercialdroneprofessional.com/dji-expands-geofencing-improvements-into-asia-pacific-airports/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-293949-Commercial+Drone+Professional+DNA++2019-03-04

DoD Innovation Org Wants System to Counter Drone Swarms Matthew Nelson March 04, 2019 News, Technology



The Department of Defense's innovation office is looking for potential vendors of a system that can help protect military facilities against potential drone swarm attacks, FCW [reported Sunday](#).

The Defense Innovation Unit is interested in a platform that works to counter incoming unmanned aircraft threats through the use of directed energy or spectrum-based capabilities. DIU wants the system to also use radar, acoustic or optical signals as well as a database of drone models to detect threats. Interested vendors have until **March 11** to submit written proposals. DIU will select and invite offerors to demonstrate



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proposed systems against targets as part of a week-long test.

<https://blog.executivebiz.com/2019/03/dod-innovation-org-wants-system-to-counter-drone-swarms/>

Drones Will Be Shot Down Until These Misconceptions Are Tackled Malek

Murison March 04, 2019



On February 23rd, Long Island resident Gerard Chasteen allegedly fired his Shotgun three times at a [DJI Mavic 2 Zoom](#) flying near his property. Rather than a neighborhood menace up to no good, the drone's operators – Lynn Fodale and Teddy Henn – were volunteers working for local pet-rescue group, Missing Angels Long Island. They were scouring the area for a lost dog when their connection to the drone abruptly cut out.

The pilots followed the Mavic's flight path and aimed for the last spot that its GPS had been located. When they arrived they met Chasteen, who admitted to shooting down the drone. "Did you shoot down our drone?" Fodale asked. "Yeah, you can't fly over my house," Chasteen replied. Suffolk County police were promptly called and have charged Chasteen with **third-degree criminal mischief and prohibited use of a weapon**.

In 2015, a [Kentucky man](#) was arrested for shooting down a quadcopter, only for the charges to be [dismissed](#) at a later date.

From prison deliveries to air traffic disruption, drones have [gained a reputation](#) for being used by criminals with malicious intent. We think that reputation is unfair, given the huge number of positive applications across all manner of industries. And that's before we get into their life-saving and environmental potential.

All of which proves that any drone you see is probably on a mission that's either a.) perfectly innocent or b.) making a positive difference in your local area. Perhaps it's assisting with a roof inspection, the maintenance of local cell towers or other vital neighborhood infrastructure. Or maybe, that drone is helping the search for a missing dog. <https://dronelife.com/2019/03/04/drones-will-be-shot-down-until-these-misconceptions-are-tackled/>

High-Resolution SAR Imagery Captured with Small UAS 27 Feb 2019 Mike Rees



[SRI International](#) has announced that it has successfully demonstrated high-resolution Synthetic Aperture Radar (SAR) imagery from a small, low-cost hobby-grade unmanned aerial vehicle. The small form factor SAR instrument generates accessible



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radar imagery for detecting and measuring solid earth vertical deformation to improve **prediction models** for landslides, levee erosion, and earthquake and volcanic activity.

"SRI's SAR instrument on a small UAV enables rapid and frequent visits over an area of interest," said Simon Lee, M.S., senior program manager. "This capability can provide scientists with the datasets needed to improve their models and forecasts."

SRI's SAR instrument is a compact radar system developed to generate high-resolution remote sensing imagery from **small satellite and UAV platforms**.

<https://www.unmannedsystemstechnology.com/2019/02/high-resolution-sar-imagery-captured-with-small-uas/>

Avalon 2019: Optionally manned Firebird set to enter service Damian Kemp,
Melbourne - Jane's Defence Weekly 28 February 2019



Northrop Grumman expects to deliver its first optionally manned Firebird aircraft to a US government customer before mid-2019. The company will demonstrate the aircraft in Europe and the Middle East in 2019 and in Australia in 2020.

The Firebird is designed to combine the advantages of manned flight with the ability to deploy easily and operate in controlled airspace and unmanned, as well as lower cost and longer endurance. This conversion from manned to unmanned involves the removal of two seats and the console and the installation of a satcom link and an opaque cover. The conversion takes less than four hours and requires a minimal amount of equipment, all of which can be carried in a standard utility vehicle. The platform can carry five payloads at once.

It has an IP-based open mission architecture, and payloads can be switched in less than 30 minutes, and we have demonstrated customer-provided payloads can be ready within 60 minutes. <https://www.janes.com/article/86913/avalon-2019-optionally-manned-firebird-set-to-enter-service>

Aerobotics doubles funding round through Paper Plane Ventures deal APPLICATION
BUSINESS FINANCIAL NEWS ALEX DOUGLAS MARCH 1, 2019



Aerobotics has confirmed the expansion of its Series A round of funding from \$2m to **\$4m**. The expansion came through a signed deal with Paper Plane Ventures. The announcement was made as part of Aerobotics' new office launch event in front of clients, partners, investors and members of the media.



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Co-founder and CEO, James Paterson commented, "We are grateful that Paper Plane Ventures has put their faith and capital in our company, which we will use to expand our growth in **South Africa**, the **United States** and around the world and increase our ability of helping farmers and partners in the agriculture industry."

As part of the event, Aerobotics went on to announce that two members of its executive team are moving to California to grow the company's business development around the United States and will **launch Los Angeles-based offices** in the second quarter of 2019.

<https://www.commercialdroneprofessional.com/aerobotics-doubles-funding-round-through-paper-plane-ventures-deal/>

Verity Studios Launches Software Algorithm to Make Drones Dramatically Safer

March 1, 2019 News



[Verity Studios AG](#), a pioneer in autonomous drones, has launched an integration program for their Failsafe technology for quadcopters. The patented Failsafe solution provides a cost-effective safety enhancement to any consumer and commercial quadcopter. This program allows drone manufacturers to implement the algorithm into their drones as a standalone or complementary safety solution to guard against propulsion system failures.

The majority of technical failures today are caused by a failure in the propulsion system (i.e., the loss of a motor controller, a motor, or a propeller). Verity has now proven the ability to control and land a quadrotor after a loss of one, or even two, of its propulsion systems with an algorithm-only solution.

When a Failsafe-enabled drone has a propulsion system failure, instead of spinning out of control and crashing to the ground, the drone stays in the air, stabilizing itself using algorithms. It can then be safely navigated to an appropriate landing location.

Verity's algorithm can be implemented into existing quadcopters through a simple **firmware update**. This code-based solution requires no additional hardware and adds no weight to the system, making it the lowest cost and highest efficiency risk-mitigation feature currently on the market. Verity has proven this technology in more than 7,000 flights over people and is now offering its algorithm to drone manufacturers. <https://uasweekly.com/2019/03/01/verity-studios-launches-software-algorithm-to-make-drones-dramatically-safer/>



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DroneUp partners with Vintun in federal work pursuit APPLICATION BUSINESS NEWS TECHNOLOGY UK ALEX DOUGLAS MARCH 5, 2019



Vintun, which provides a variety of services for military and government organizations and has developed Vintun Drone-as-a-Service, will use DroneUp as a service provider as part of the partnership.

DroneUp's patent-pending platform, Mission Match™, enables VDaaS's participants to locate, qualify and deploy **the right drone pilot for the right mission**.

Tom Walker, CEO of DroneUp said: "DroneUp is excited to partner with Vintun to assist in expanding the federal use of drones. We look forward to providing these valuable services and continuing to expand the drone industry."

The collaboration will see both firms acquire, process, and deliver actionable aerial data for various agencies and organizations within the US Government **at the highest level**.

Greg Early, president of Vintun added: "VDaaS enables the customer to reduce the inspection cycle, get detailed imagery or other sensor data, enhance worker safety and get accurate data regardless of weather conditions. We are happy to partner with DroneUp on providing these new services to our customers." https://www.commercialdroneprofessional.com/droneup-partners-with-vintun-in-federal-work-pursuit/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-294031-Commercial+Drone+Professional+DNA+-+2019-03-05

Northam speaks at drone conference at Albemarle vineyard BRYAN MCKENZIE



National Institute of Standards and Technology engineer Adam Jacoff (left) watches as Gov. Ralph Northam (center) controls a drone alongside Spotsylvania Battalion Chief Kasey Campbell during the 2019 National Public Safety UAS Conference at King Family Vineyards on March 4, 2019.

If there's a felon in the woods or a fire in a home, emergency responders are safer when they **send in the drones**, Gov.

Ralph Northam told attendees of an unmanned aircraft systems conference Monday.

It was the governor's first appearance at the Piedmont Virginia Community College-sponsored event that features public safety experts who use drones for law enforcement, search and



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rescue, emergency services and disaster relief. The third annual conference, held at King Family Vineyards outside of Yancey Mills, featured attendees from Japan, Australia and Canada, as well as makers of drones and operating software.

“Drones are being used right now in Alabama, where tornadoes killed more than 20 people. They’re already being used for search and rescue and security,” Northam told the audience, referring to Sunday’s storms across the South that killed 23 people.

“It is important that we maintain safety on our streets and in our community, and drones allow us to do that without unnecessarily risking the lives of first responders,” he said. The governor noted that drones carrying high-tech cameras are used to inspect bridges and buildings and help to find people in dark or wooded areas. Some, he said, are delivering fast food.

Drone technology may not only save lives and improve security, it could boost the state’s economy, Northam said. Drone-related jobs in software, hardware and other industries could be **a big boost** in jobs and income. https://www.dailyprogress.com/news/local/northam-speaks-at-drone-conference-at-albemarle-vineyard/article_db04f97e-3ef6-11e9-96e2-878d1d2d5f93.html

Global Hawk UAS Lands at Airshow 05 Mar 2019 Mike Rees



[Northrop Grumman](#) has announced that its RQ-4 Global Hawk autonomous unmanned aircraft system has landed at the Avalon 2019 Australian International Airshow and Aerospace & Defence Exposition, marking the **first time** that the aircraft has landed during an airshow.

The aircraft flew in smoothly, landing precisely on the runway before pausing and then **taxiing itself** to a point where it was towed to the static display area.

This autonomous system has been supporting the U.S. and its allies for nearly two decades around the world. The aircraft arrived after a **13-hour, 3,075 nautical mile** journey from Andersen Air Force Base in Guam. With a wingspan of 130 feet – the same as a 737 – Global Hawk provides near-real-time actionable intelligence for more than **30 hours** at a time, at altitudes of **60,000 feet** or 11 miles high. Watch a video of the Global Hawk UAS landing:

https://www.unmannedsystemstechnology.com/2019/03/global-hawk-uas-lands-at-airshow/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=6b8c077e35-eBrief_2019_Mar_05&utm_medium=email&utm_term=0_6fc3c01e8d-6b8c077e35-111778317



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Drones are Proving Their Worth in Fire and Emergency Services Miriam

McNabb March 05, 2019



Almost every town and city in the world is working on a tight budget – but drones are proving to be one of the best investments that a community can make to assist their fire and emergency services departments.

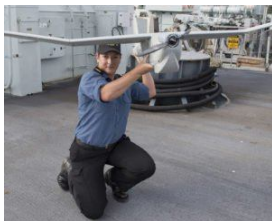
In Vincennes, IN, the local TV channel [reports](#) that the city's drone program has continued to grow since its inception in mid-2018. The Vincennes department's drone is equipped with a FLIR [thermal camera](#), and the drone is used to monitor fires, take aerial views of Hazmat accident scenes, or search for missing people. The drone can also be used to deliver life preservers during water rescues.

Drones are already on the scene of Alabama's deadly tornados, searching for survivors. "Xenia Fire Department Captain Brian Brennaman said they use their thermal energy drone often," [reports](#) FOX45 news.

With fire and emergency departments under more pressure than ever to provide more services for less budget, drones prove a valuable tool. "Drones – especially equipped with thermal imaging – are one of the best tools a community can invest in – they can be used in so many ways to assist fire and police departments. They provide a valuable tool for all different kinds of emergency situations: accidents, fire, search and rescue, crime scene investigation and more," says Rob Schield, veteran firefighter and CEO of [Fire Cam](#).

<https://dronelife.com/2019/03/05/drones-are-proving-their-worth-for-fire-and-emergency-services/>

Puma Drones Will Enhance Recon for Canadian Navy Jason Reagan March 04, 2019



[Kingston-class coastal defense ships](#) will deploy [Puma fixed-wing drones](#) to provide beyond-visual-line-of-sight intelligence, surveillance and reconnaissance, a naval release stated.

Manufactured by [AeroVironment](#), the drone can stay aloft for two hours and fly as high as 10,500 feet with a range of 12 nautical miles. The naval model will be equipped with optical and infrared cameras that can capture still imagery and video.

"With Puma they're able to detect these vessels, get **over the horizon intelligence** and surveillance on these vessels so the crew is able to see if there's anything suspect," explained



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Lieutenant-Commander Atkinson. <https://dronelife.com/2019/03/04/puma-drones-will-enhance-recon-for-canadian-navy/>

After the storm: drones sent in to help locate victims of deadly US hurricanes

March 5, 2019 Feilidh Dwyer



Infrared drones have been sent in to search for victims following a series of devastating tornadoes that smashed through several southern states on Sunday.

One of the twisters was a mile wide and travelled at speeds of 170mph, tore through Alabama, Florida and Georgia. Thousands of houses and vehicles were destroyed, and at least 23 people, including children, were killed. This was the deadliest twister in six years.

In the aftermath, finding survivors can be a difficult task. Rescue services have employed rescue dogs and **infrared-equipped** drones to search the carnage. The infrared drones will fly over large swathes of homes in a lawnmower pattern, **looking for any heat signature** that may correspond to people lying beneath the wreckage.

Drones have played a major role in multiple search and rescue operations over the past few years. A study released last year showed that in 50 trials, in 85 percent of cases, **UAVs were faster than human rescue teams at finding targets**. As of July last year, some **160 people** are confirmed to **have had their lives saved by drones**. <https://www.wetalkuav.com/after-the-storm-drones-sent-to-help-locate-victims-of-deadly-us-hurricane/>

6Mar19

Drones Evolve Rapidly to Enhance All Walks of Life, Create a Lucrative Industry



The market value of the industrial drone segment is likely to increase greatly, experts said.

An agricultural drone sprays fertilizer on a wheat field in Daliuzhuang village, Shandong province. Credit JI ZHE / FOR CHINA DAILY

Drone industrial applications are seeing huge demand in China as a range of sectors — agriculture, geological



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surveying and mapping, electricity, oil and petroleum pipeline inspection, transportation, construction, public security and disaster relief — are using them.

Data from the Shenzhen-based Qianzhan Industry Research Institute said the industrial drone segment is now growing rapidly, with total sales revenue in 2020 expected to reach **\$2.5 billion**.

Shenzhen, Guangdong province-based DJI, which currently accounts for 70 percent of the global consumer drone market, is devoting a great deal of attention to **farming sector** drones.

DJI plans to further invest 10 million yuan in agricultural drones and on cultivating drone operators this year — **it will open 1,000 brick-and-mortar retail stores**, train over 20,000 professional drone operators and establish more than 600 training branches across the nation.

In December, it launched its latest agricultural drone, the T16, which features an upgraded loading capacity, as well as dynamic systems to increase working efficiency and accuracy.

<https://www.nytimes.com/paidpost/china-daily/drones-evolve-rapidly-to-enhance-all-walks-of-life-create-a-lucrative-industry.html>

Airports scramble to handle drone incidents Matt McFarland, CNN Business March 5, 2019



Washington, DC (CNN) Airports in various cities -- including [Newark, New Jersey](#); [Gatwick, England](#); [Dublin, Ireland](#) and [Dubai](#) -- have grounded planes in the last three months following drone sightings.

Aviation experts fear catastrophic damage or death could result from a drone hitting an airplane. Such an incident could be accidental or motivated by ill will, such as a terrorist attack. A 2017 [FAA study](#) found that drones colliding with large aircraft can cause more damage than birds. And Airlines risk losing millions of dollars from flight delays and cancellations.

"One major underlying concern across industry sectors is the **lack of** tested and fully vetted drone detection and **counter-drone systems**," Chris Oswald, senior vice president for safety and regulatory affairs at the Airports Council International-North America, told CNN Business. Automated solutions for detecting drones are expensive, may interfere with airports' navigation system and don't always work, according to FAA tests conducted in late 2016 and early 2017.

The FAA hasn't examined technologies designed to counteract rogue drones, such as jamming radio signals or shooting them down with an electromagnetic pulse or physical net. An FAA



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official said earlier this month that taking action against malicious drones is **critical** and would need to be executed carefully. <https://www.cnn.com/2019/03/05/tech/airports-drones/index.html>

Chinese drone manufacturer to make offering in the US, reports suggest

APPLICATION BUSINESS FINANCIAL HEADLINE NEWS TECHNOLOGY ALEX DOUGLAS MARCH 6, 2019



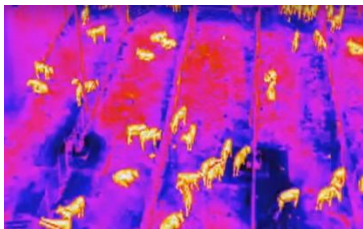
EHang is reportedly planning to make an initial public offering in the United States according to two sources speaking to Reuters who are said to have direct knowledge of the matter.

One of the sources said the deal could raise between \$400m and **\$500m**. The Reuters' sources speculates that Morgan Stanley and Credit Suisse are currently at work preparing the offering. Credit Suisse declined to comment after Reuters made a request for more information while EHang and Morgan Stanley did not reply.

Ehang was established in 2014 as an intelligent autonomous UAV firm with integrated R&D, manufacturing and sales and services capabilities. It is headquartered in Guangzhou and says it aims to provide customers from various industries with user-friendly, safe, intelligent and efficient **autonomous** aerial vehicles. https://www.commercialdroneprofessional.com/chinese-drone-manufacturer-to-make-ipo-in-the-us-reports-suggest/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-294192-Commercial+Drone+Professional+DNA+-+2019-03-06

VIDEO: Drones help in quest to reduce use of antibiotics in livestock AGRICULTURE

APPLICATION EDUCATION HEADLINE NEWS HEALTH ALEX DOUGLAS MARCH 6, 2019



Scientists within the Texas A&M University System have been testing new technology to find ways to reduce the use of antibiotics in livestock. One of the technologies is drones equipped with thermal imaging cameras to **identify feverish animals**.

Being able to single out only the sick cattle, scientists can treat only the ones in need of medication instead of relying on the practice of injecting the entire herd with antibiotics.

Texas A&M University System chancellor, John Sharp, said: "Millennials are getting blamed for destroying industries, but in this case, they are creating one. Demand for antibiotic-free meat



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and ingenuity from Texas A&M AgriLife Research scientists have led to some very exciting technology and a **new segment** of precision agriculture.”

As well as drones, scientists have used other cameras and artificial intelligence to identify ailing animals based on behavior. Watch a video of the drone in action here:

https://www.commercialdroneprofessional.com/video-drones-help-in-quest-to-reduce-use-of-antibiotics-in-livestock/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-294192-Commercial+Drone+Professional+DNA++2019-03-06

7Mar19

Drones are flying contraband into prisons. Lawmakers want it stopped. News

Service of Florida 6March 2019



This undated image provided by Amazon.com shows the so-called Prime Air unmanned aircraft project that Amazon is working on in its research and development labs.

TALLAHASSEE -- A criminal justice package that would help state correctional facilities address a growing problem with staffing shortages and drones flying contraband into prisons advanced Tuesday in the Florida House with the endorsement of the head of the Department of Corrections.

“Obviously, I support this legislation --- **drones and prisons don't mix**,” Department of Corrections Secretary Mark Inch said. “Not only is there the risk of contraband, but even the use of drones to surveil the prisons, look at our security procedure and look at inmates in our facilities ... is a risk to our facilities.”

The House Civil Justice Subcommittee approved the proposal without opposition. The measure (PCB CRJ 19-01) would ban the use of drones over and near state and private correctional facilities as well as juvenile detention centers. <https://www.tampabay.com/florida-politics/2019/03/06/drones-are-flying-contraband-into-prisons-lawmakers-want-it-stopped/>

Drones in disasters: Eyes in the air play key role in Alabama tornado zone – and beyond Brad Harper and Chris Woodyard, USA TODAY March 6, 2019

BEAUREGARD, Ala. – With roads blocked by fallen trees after the deadly tornado here that killed 23, the first few rescuers climbed fields of debris to search for survivors, but there



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weren't enough of them to cover such a wide area. But they soon got eyes in the air – in the form of infrared-equipped drones.

“We’ve used drones in the last couple of years for different operations, but this is the first time we’ve used it for **extensive search and recovery**,” Lee County, Alabama, Sheriff Jay Jones said.



Because many are equipped with infrared sensors, drones can be used to detect a heat signature from survivors or, in the case of wildfires, show where firefighters need to go to quell flare-ups. They can let search dog crews know where it is safe to enter a burn zone so the canines won't burn their paws. As technology improves, drones are getting new capabilities such as loudspeakers and spotlights.

How drones can help in a disaster:
Drones are being used for mapping disaster areas, searching for victims and damage assessment. But they are limited by time in the air.

- 1** Cameras provide crews with valuable aerial perspectives, assess damage and can map disaster areas.
- 2** Spotlights can pinpoint locations of victims.
- 3** Speakers can say things like “Stay where you are. Help is on the way.”
- 4** Infrared cameras can locate survivors.

SOURCE USA TODAY research

Police and fire agencies across the country continue to add drones for disaster preparedness and to find new uses for them, such as creating before-and-after maps of devastation to checking the status of damaged dams or other crucial infrastructure. They can go where people safely can't, such as areas where hazardous material has spilled.

About **900** state and local police, fire and other emergency units are using the unmanned aircraft, the New York Police Department said in December in announcing its own drone program.

Some of the new features coming to drones will make them even more capable. Adding spotlights to drones will help them find victims at night. Speakers can let rescuers tell victims to stay put and that help is on the way, said Romeo Durscher, director of public safety integration for drone maker DJI. “Sometimes, it can take a tragedy to open your eyes to new tools you have available.” <https://www.usatoday.com/story/news/nation/2019/03/06/drones-disasters-alabama-tornado-recovery-relief/3077948002/>

Red Cat Releases Blockchain-Based Data Storage, Analytics, and Services Platform in Beta for the Drone Industry

March 6, 2019 News



[Red Cat](#), a leading provider of distributed data storage, analytics and services for the drone industry, today announced the beta release of its

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blockchain-based black box storage, analytics and services platform to **make drones trackable and accountable**.

Red Cat's platform release includes several integrated systems that enable industry regulators to track and review drone flight data, insurance companies to insure drones with reliable third-party data and pilots to ensure compliance with regulators. Red Cat's black box flight recorder is the **first** distributed system with secure and encrypted third-party data that regulators and insurance companies can trust.

Red Cat's proprietary platform was designed to address the growing need in this rapidly evolving ecosystem for a simple and secure data storage and analytics solution for regulators, insurance companies, pilots/enterprisers with drone fleets, and drone service companies..

<https://uasweekly.com/2019/03/06/red-cat-releases-blockchain-based-data-storage-analytics-and-services-platform-in-beta-for-the-drone-industry/>

Raptor Maps to Support Drone Inspections for Solar Developer Cypress Creek

Betsy Lillian March 6, 2019



Raptor Maps' software will support the developer's internal unmanned aircraft systems team by providing data analytics and reports from PV plant inspections. The Cypress Creek UAS team expects to perform more than **300 drone inspections this year**.

"We realized early on that a robust **aerial thermography** program was something we wanted to pursue," says Kyle Cooper, vice president of operations and maintenance at Cypress Creek. "We started scanning sites in 2016 and in early 2017, ordering a fleet of drones and staffing a team of electrical engineers and qualified technicians to lead our reliability engineering program. We quickly found that combining technical analysis with boots on the ground resulted in improved facility performance and reduced O&M costs by minimizing truck rolls."

The solar company has worked with Raptor Maps on a proof-of-concept pilot over the last several months. Cypress Creek has now decided to roll out the Raptor Maps solution on all solar inspections in 2019 and the following years. To date, Cypress Creek has more than 3 GW of solar deployed in more than a dozen states. https://unmanned-aerial.com/raptor-maps-to-support-drone-inspections-for-solar-developer-cypress-creek?utm_medium=email&utm_source=LNH+03-07-2019&utm_campaign=UAO+Latest+News+Headlines



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ParaZero SafeAir opens up possibility for flight over people after compliance green light BUSINESS FAA NEWS REGULATION TECHNOLOGYALEX DOUGLAS MARCH 7, 2019



ParaZero has achieved ASTM compliance for its SafeAir Phantom System. It comes after the FAA indicated that parachute systems that comply with F3322-18 can be used as risk mitigation as part of waiver applications.

It is a parachute system that monitors UAS flight in real time, identifies critical failures and autonomously triggers a parachute, a flight termination system and an audio-warning buzzer.

Eden Attias, CEO of ParaZero said: "To comply with the standard, we pushed the system to its limit and tested every imaginable failure scenario."

https://www.commercialdroneprofessional.com/parazero-safeair-opens-up-possibility-for-flight-over-people-after-compliance-green-light/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-294341-Commercial+Drone+Professional+DNA+-+2019-03-07

Understanding the Framework for Pan-European Drone Regulations Juan Plaza March 6, 2019



There is a concerted effort by the 32 state members of the [European Aviation Safety Agency](#) to integrate UAVs into the continental airspace. At the same time, regulators from individual countries and drone manufacturers are working together to make sure the industry benefits from the unified legislation in terms of innovation, leadership and of course, sales.

[Drones in Europe](#) is a rapidly developing sector. Within 20 years, the European drone sector will [directly employ](#) more than 100,000 people and have an economic impact exceeding €10 billion per year, **mainly in services**. All of the efforts to advance common rules and regulations will help ensure these jobs are both created and maintained.

Summary of New Proposed EU Drone Rules:

- New drone rules agreed to ensure common levels of safety across EU countries
- Operators of drones of 250g or more are to be registered
- Drones must not be operated at a height of more than 400ft above the surface



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- Drones restricted to flying within 1km of protected aerodromes
- Drone designs must ensure they can be operated without putting people at risk
- Drone operators must be aware of all the rules that apply to them

Two further Regulations are planned: the requirements on consumer drones and assurances that they are risk-based and proportionate. Remaining Issues include how member states can create restricted drone zones, the high volume which will need to be registered and how to fully adopt U-space. Other regulatory authorities will need to work together on safety issues, but this is expected to go smoothly. https://www.expouav.com/news/latest/framework-drone-regulations-europe/?mkt_tok=eyJpIjoiWmpkak9XVTNOREUzWIRNdylsluQiOiJnZSt2dWhtMjhQZVFSU3BrMjB5UWNOV3daV2cyCg40dUZITzBLQU54bWNPbWVMSk94akoxcnEyRkdBQktGdkVuS0p0bkw3MmFyWFwvdDF1dFZuRzJUeW5hdjNlc3BWCcUVvUmF3bzVSbIZFYWlyODFEWVWxMcW9vN2JjODRzMzh0d0kifQ%3D%3D

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8Mar19

XQ-58A Valkyrie Demonstrator Completes Inaugural Flight March 7, 2019 Military



The XQ-58A Valkyrie demonstrator, a long-range, high subsonic unmanned air vehicle completed its inaugural flight March 5, 2019 at Yuma Proving Grounds, Arizona. The Air Force Research Laboratory partnered with Kratos Unmanned Aerial Systems to develop the aircraft.

This joint effort falls within the Air Force Research Laboratory's Low Cost Attritable Aircraft Technology (LCAAT) portfolio, which has the objective to break the escalating cost trajectory of tactically relevant aircraft. The objectives of the LCAAT initiative include designing and building UAS faster by developing better design tools and maturing and leveraging commercial manufacturing processes to reduce build time and cost.

Developed for **runway independence**, the aircraft behaved as expected and completed 76 minutes of flight time. The time to first flight took a little over 2.5 years from contract award.

"XQ-58A is the **first example** of a class of UAV that is defined by **low** procurement and operating **costs** while providing **game-changing combat capability**," said Doug Szczublewski, AFRL's XQ-58A Program Manager. <https://uasweekly.com/2019/03/07/xq-58a-valkyrie-demonstrator-completes-inaugural-flight/>

Terra Drone welcomes delegates from over 20 countries at first global summit

ALEX DOUGLAS MARCH 8, 2019



The three day Tokyo summit hosted representatives from Asia, South America, Africa, Europe, Canada, Australia and Russia. CEO of Terra Drone, Toru Tokushige, opened the meeting with an energetic speech and



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highlighted the key projects and recent milestones achieved across the brand. Over the past 12 months, Terra Drone has expanded rapidly around the world. Michael Siagian from Terra Drone Indonesia stated: "The global meeting was a good opportunity to meet members from around the world. I am excited for what's coming next. I see the **future drone business being huge in the global market.**"

Their merger strategy sees Terra Drone acquire 51% of a business and assign an employee to the newly acquired branch to provide support and drive its growth. The freshly formed branches are then left to manage the business at their discretion, allowing them to best serve the interests of their local clients.

Terra Drone CEO, Toru Tokushige, stating that "our ultimate goal is to be **the world's leading start-up company in a new industrial domain.**" https://www.commercialdroneprofessional.com/terra-drone-welcomes-delegates-from-over-20-countries-at-first-global-summit/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-294497-Commercial+Drone+Professional+DNA+-+2019-03-08