



## UAS and SmallSat Weekly News

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### **From above, Miami-Dade police drone recorded crack cocaine sale live. It's a first, cops say** \_DAVID OVALLE JANUARY 16, 2020 Play Video Duration 0:55

For the first time, Miami-Dade police have used a drone to record a suspected drug sale in real-time. The use of the drone was approved by a judge, and the footage is now in evidence in a criminal-court case.

Miami-Dade narcotics detectives needed surveillance as they investigated a suspected armed drug dealer believed to be peddling crack cocaine over the fence of his house's backyard. But the surveillance didn't come from a cop hiding in a tree, an unmarked car or a nearby building.

Instead, the eyes came from **3,100 feet** above the ground as officers launched a police drone to capture what they say was Andre "Dread" Scott selling cocaine to an undercover informant from the yard of his Northwest Miami-Dade home. The drone footage — approved beforehand by a judge — marks the **first time** that Miami-Dade police has employed an unmanned aerial vehicle to obtain real-time evidence in a criminal investigation.



In the Scott case, the drone footage is now evidence as Miami-Dade prosecutors look to convict the 31-year-old on a slew of weapon-and-drug charges. He remains jailed.

<https://www.miamiherald.com/news/local/crime/article239246988.html>

### **UTM system to be implemented for the first time in Nordic region** 16 January 2020 International Airport Review



Norway is set to become the **first** country in the Nordic region to implement a new Unmanned Traffic Management system, allowing the country's leading Air Navigation Service Provider, [Avinor](#) Air Navigation Services, to begin safely integrating drones into controlled airspace at 18 airports across Norway.

Frequentis was awarded the contract following a competitive tender process, and will now work with Altitude Angel, a UTM technology provider, to deliver the solution to Norway. The initial three-year contract determines that Avinor will be provided with several products and services to facilitate the safe integration of drones into the controlled airspace. This will include



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an ATM-grade Flight Information Management System, a foundation of U-Space services that enables Avinor to open Norwegian airspace to commercial drone use, as well as a drone registration system and web and mobile flight planning application.

<https://www.internationalairportreview.com/news/110464/utm-system-implemented-nordic-region/>

### **EHang Releases White Paper on Urban Air Mobility** January 16, 2020 News



EHang — which recently demonstrated its two-seat EHang 216 AAV in North Carolina — details its concept in a new white paper on UAM systems, dated Jan. 15, 2020. According to the paper, UAM systems “will have the best chance at full-scale implementation if they are focused on safety, operated smartly, and connected under the command of a centralized platform.”

“Cluster management techniques centralized at a ground-based command-and-control center would allow UAM operators to control a multitude of vehicles simultaneously in an orderly and safe manner,” the white paper states. “This way, all flight routes could be pre-registered and pre-determined so that UAM vehicles can travel only between certified ‘base points,’” yielding a structure that resembles “an on-demand bus system rather than a taxi system.”

In December, EHang raised **\$40 million** through an initial public offering on the Nasdaq, and is now trading under the symbol EH.

The white paper estimates that each of EHang’s AAVs — which have a reported acquisition cost of \$300,000 — could generate annual revenues of more than \$350,000 and profit of \$138,000 in UAM operations, assuming a unit fare of \$2.50 per passenger-kilometer, somewhat above the approximately \$1.50/km of a New York City cab. [https://uasweekly.com/2020/01/16/ehang-releases-white-paper-on-urban-air-mobility/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_17\\_2020&utm\\_term=2020-01-17](https://uasweekly.com/2020/01/16/ehang-releases-white-paper-on-urban-air-mobility/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_17_2020&utm_term=2020-01-17)

### **Leonardo’s Falco Xplorer Drone Completes First Flight** Military News January 17, 2020



Leonardo has announced the maiden flight of its new Falco Xplorer drone aircraft. Falco Xplorer S/N0001 took off from Trapani Air Force base on January 15, cruised over the Gulf of Trapani in a dedicated fly zone, for around 60 minutes and then returned to base, landing safely. The maiden flight is a significant



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**milestone** that has been achieved by the Italian Air Force Test Flight Centre. It combines the endurance of **24h** with a max payload of 350kg. It has a maximum take-off weight of 1.3 tons and an operating ceiling above 24,000ft.

Sensors include surveillance radar, an electronic intelligence system, an automatic identification system for maritime missions and an Electro-Optical turret. An optional hyperspectral sensor will allow it to monitor pollution and agricultural development. The satellite link capability allows for beyond-line-of-sight operations. It is readily exportable around the world.

[https://uasweekly.com/2020/01/17/leonardos-falco-xplorer-drone-completes-first-flight/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_17\\_2020&utm\\_term=2020-01-17](https://uasweekly.com/2020/01/17/leonardos-falco-xplorer-drone-completes-first-flight/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_17_2020&utm_term=2020-01-17)

### **Mauritania to use drones to take on desert locusts** Josh Spires Jan. 17th 2020



**Mauritania** will soon be testing [drones to fight back](#) against the swarms of desert locusts damaging farmers' crops and livelihoods. The test is thanks to the United Nations, which is hoping to minimize the damages. The tests are being run by a [joint operation](#) between the Food and Agriculture

Organization of the United Nations and the National Centre for Desert Locust Control.

The drones will track and monitor desert locusts and instigate early-warning operations before the swarms arrive so that appropriate action can be taken. Along with the [drones](#), five teams of 10 explorers will be deployed within the areas where locusts are known to breed. These teams will be deployed for 21 days and consist of members from Algeria, Burkina Faso, Mauritania, Morocco, Niger, Senegal, Chad, Libya, Mali, and Tunisia.

This round of testing will explore whether the drones are suitable for use within Mauritania, and if all goes well, it will allow them to be used in other countries affected by the desert locusts. <https://dronedj.com/2020/01/17/mauritania-drones-desert-locusts/#more-23052>

### **DRONERESPONDERS Focused on Public Outreach and Drones for Good™ in 2020**

Danielle Gagne

In the commercial drone world, one of the biggest risks to developing commercial UAV programs is public approval of drones. This is especially true for drone operators working within public safety and emergency services.



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### *Mapping the Aftermath of Hurricane Dorian*

The Airborne International Response Team is home to DRONERESPONDERS – the world’s fastest growing program supporting public safety UAS. In 2019, it blazed a trail through the industry developing partnerships, alliances, and generating much needed visibility surrounding the use of drones by first responders.

For 2020, they are launching their Drones For Good™ campaign focused on demonstrating the value drones have to offer across a wide variety of public safety and emergency response cases. Examples of the campaign include mapping the disaster zone of Hurricane Dorian in the Bahamas, establishing [safety standards for flight training and operations](#), conducting public awareness campaigns with key partners, and by helping to educate first responders at the [Global Public Safety UAS Summit](#), set to take place at [AUVSI XPONENTIAL 2020](#) in Boston. <https://www.commercialuavnews.com/public-safety/airt-droneresponders-focused-on-public-outreach-and-drones-for-good-in-2020>

**20Jan20**

### **Gremlins Program Completes First Flight Test for X-61A Vehicle**

OUTREACH@DARPA.MIL 1/17/2020



The test in late November at the U.S. Army’s Dugway Proving Ground in Utah included one captive-carry mission aboard a C-130A and an airborne launch and free flight lasting just over an hour-and-a-half.

The goal for this third phase is completion of a full-scale technology demonstration series featuring the air recovery of multiple, low-cost, reusable unmanned aerial systems, or “Gremlins.” Safety, reliability, and affordability are the key objectives for the system, which would launch groups of UASs from multiple types of military aircraft while out of range from adversary defenses. Once Gremlins complete their mission, the transport aircraft would **retrieve them in the air** and carry them home, where ground crews would prepare them for their next use within 24 hours.

The team met all objectives of the test in November, including gathering data on operation and performance, air and ground-based command and control systems, and flight termination.



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The next step for the program is a full evaluation of the test data to prepare for the second flight test at Dugway in the spring 2020. <https://www.darpa.mil/news-events/2020-01-17>

### Why the Whole World Should Watch the African Drone Forum Next Month

Miriam McNabb January 20, 2020



**February 5 – 7, 2020. Register [here!](#)**

When Rwanda [signed the first government contract](#) to allow widescale medical drone delivery, the move – and the program, which had the dual benefits of providing skilled jobs to the local community and providing life-saving medical delivery services – caused a ripple throughout the global drone industry. When [UNICEF worked closely with the Malawi government](#) to open a drone corridor for testing and delivery applications, it caused another ripple – and created a valuable model for other testing programs.



These and other innovative programs on the continent have proven the importance and benefits of drone technology to governments and communities. The [African Drone Forum](#) that will be hosted by the Government of Rwanda on February 5-7, 2020 in Kigali is led by the World Bank and has garnered the support of partners that include the World Economic Forum, UKAID/DfID, Danida, the Republic of Korea, the World Food Programme, UNICEF, John Snow, Inc., Deloitte, AfricanDRONE, Tanzania Flying Labs and many other organizations. The program is designed to bring government stakeholders and drone technology providers together – and will showcase the kind of ideas that have **led the rest of the world** in implementing the best and most useful applications.

<https://dronelife.com/2020/01/20/why-the-whole-world-should-watch-the-african-drone-forum-next-month-2/>

### DJI to attend second annual UAS Ag Summit by AgrowDrone AGRICULTURE

APPLICATION DJI MANUFACTURER NEWS UNITED STATES SAM LEWIS JANUARY 20, 2020



AgrowDrone will be holding its second annual UAS Ag Summit, at the AG Centre in Binghamton, New York on February 19.

Highlights will include a keynote presentation from DJI’s director of agriculture for North America, as well as presentations on predicting crop health, FAA regulation,



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complying with state laws, and more. The UAS Ag Summit is free but ticketed. Tickets are available AgrowDrone's website. The day will begin at 9:00am, and the final session will commence at 4:45pm.

AgrowDrone is a drone service provider for agricultural solutions. It also sells most major brands of drones and has a certified network of agriculture UAS pilots.

[https://www.commercialdroneprofessional.com/dji-to-attend-second-annual-uas-ag-summit-by-agrowdrone/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-321828-Commercial+Drone+Professional+DNA+-+2020-01-20](https://www.commercialdroneprofessional.com/dji-to-attend-second-annual-uas-ag-summit-by-agrowdrone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321828-Commercial+Drone+Professional+DNA+-+2020-01-20)

## Indra Chairs the New Eurocae Group That Will Standardize CUAS Technology

January 20, 2020 Counter UAS



EUROCAE, the European Organization for Civil Aviation Equipment, has entrusted Indra, a global technology and consulting company, with the presidency of the new working group. It has been set up to develop the standards that will support the safe and harmonized implementation of anti-drone systems in airports and other environments.

The group's launch meeting took place last December and was attended by 44 experts from 36 organizations, including the European Commission, the European Aviation Safety Agency and Eurocontrol. During the meeting, the group voted to appoint Indra's representative, Jorge Munir El Malek, as president of the team.

Indra produces the ARMS anti-drone solution. The company is a leader in electronic defense technologies, communications, optoelectronic systems, radar, command and control systems that comprise this type of system. [https://uasweekly.com/2020/01/20/indra-chairs-the-new-eurocae-group-that-will-standardize-cuas-technology/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_20\\_2020&utm\\_term=2020-01-20](https://uasweekly.com/2020/01/20/indra-chairs-the-new-eurocae-group-that-will-standardize-cuas-technology/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_20_2020&utm_term=2020-01-20)

## Pyka just secured \$11 million in a seed funding round Josh Spires Jan. 20th 2020



Pyka is taking on the crop-spraying business with its [autonomous crop drone](#), which is capable of spraying **135 acres in an hour**. The drone removes the danger for pilots who fly a few meters from the ground and reduces costs. [Pyka](#) received the \$11 million from Prime Movers Lab, Y Combinator, Greycroft, Daa Collective,



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and Bold Capital Partners.

The drone can hold payloads up to 450 pounds and only needs 150 feet to take off. Its three 20 kW electric motors provide cruising at a top speed of 90 mph. The [drone sprays](#) out the payload using a centrifugal pump with carbon composite spray booms to deliver the chemicals.

It is capable of detecting obstacles and flying around them. No one needs to fly the drone at all during the operation, as operators only enter flight parameters, and the **autonomous flight controller** does the rest. The drone has a custom-built battery that includes redundant cells and can be swapped for fast turnaround times between flights. <https://dronedj.com/2020/01/20/pyka-secured-11-million-seed-funding-round/>

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**DJI Mavic Pro used to create Baby Yoda image in night sky** NEWS UNITED STATES SAM LEWIS JANUARY 21, 2020



Self-proclaimed 'light painting photographer' Russell Klimas has created an image of Baby Yoda using a DJI Mavic Pro in the night sky above Colorado Springs.

The photographer set an automated route for the drone using Google Earth and attached a Lume Cube strobe light to the aircraft.

He then put his camera on a long exposure setting, and over the ensuing 18 minutes captured the drone's journey in one photograph.

Klimas prides himself on not using any photo-editing software on his works after the fact, with all of the 'magic' taking place in front of the camera.

The project failed on Klimas' first attempt, with the photographer theorizing that the Lume Cube attachments caused the drone to crash. With adjustments and the addition of a borrowed drone, he tried again with more success.

"I put an overlay into Google Earth, added the place marks that the drone would follow, and then exported the list of points to a KML file," he commented to *Popular Mechanics*.

[https://www.commercialdroneprofessional.com/dji-mavic-pro-used-to-create-baby-yoda-image-in-night-sky/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21](https://www.commercialdroneprofessional.com/dji-mavic-pro-used-to-create-baby-yoda-image-in-night-sky/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21)





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### **VIDEO: DJI drones deployed for DFDS terminal inspections** APPLICATION BUSINESS

VIDEO ALEX DOUGLAS JANUARY 21, 2020



The footage details how a leading international ferry operator, DFDS, is conducting automated inspections using drones and AI technology.

Using Lorenz Technology's pre-flight software with a Matrice 210 with Zenmuse XT2, the DFDS team is able to increase their inspection efficiency.

Watch the footage [here](https://www.commercialdroneprofessional.com/video-dji-drones-deployed-for-dfds-terminal-inspections/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21): [https://www.commercialdroneprofessional.com/video-dji-drones-deployed-for-dfds-terminal-inspections/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21](https://www.commercialdroneprofessional.com/video-dji-drones-deployed-for-dfds-terminal-inspections/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21)

### **CDP kicks off monthly Special Report series with innovation focus** APPLICATION

EXCLUSIVE HEADLINE NEWS INTERNATIONAL SPECIAL REPORT UK ALEX DOUGLAS on JANUARY 21, 2020



This month, the first of the year, delves into how despite the term 'innovation' being used by a number of businesses across a variety of market verticals, just how important it is for drones around the world.

Speaking to industry leading names from across the market including DJI, iRed and Flock, CDP finds out just what drone innovation means for the business side of the market and how it can help drive what the industry is trying to achieve forward.

[CLICK HERE TO DOWNLOAD THE PDF](https://www.commercialdroneprofessional.com/exclusive-cdp-kicks-off-monthly-special-reports-with-drone-innovation-focus/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21) [https://www.commercialdroneprofessional.com/exclusive-cdp-kicks-off-monthly-special-reports-with-drone-innovation-focus/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21](https://www.commercialdroneprofessional.com/exclusive-cdp-kicks-off-monthly-special-reports-with-drone-innovation-focus/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-321908-Commercial+Drone+Professional+DNA+-+2020-01-21)



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### The V-Coptr Falcon – A 2-Propeller Drone with a 50 Minute Flight Time Miriam

McNabb January 21, 2020



One of the coolest looking drones we've seen in a while is the V-Coptr Falcon from [ZeroZero Robotics](#). This design is stunning to look at – and according to our friends at Roswell Test Flight Crew, the function is equally amazing. Check out this review! <https://dronelife.com/2020/01/21/the-v-coptr-falcon-a-2-propeller-drone-with-a-50-minute-flight-time/>

### Urban Air Mobility Big Money is Backing: Toyota's \$394 M Investment in Passenger Drones Miriam McNabb January 21, 2020



[Joby Aviation](#), pioneers in electric propulsion aircraft, has just received another massive funding round to make their vision of drone taxis a reality.

Urban Air Mobility is a big topic, and there are a lot of players in the space – everything from the Jetson's idea of everyone in their own flying car to passenger drones as part of a large public transportation infrastructure.

The model that seems most likely to emerge first, however, is Mobility as a Service: call for a ride through an app when you need one. The Joby Aviation model is easy to understand – book your flight from your app, go to the nearest drone port to pick it up, and the drone taxi will take you to the drone port nearest your destination.

Joby Aviation's aircraft is a piloted, five-seat vehicle capable of vertical takeoff and landing and highly efficient, wing-borne forward flight. It is capable of speeds of 200 miles per hour and can fly over 150 miles on a single charge. The aircraft is 100 times quieter than conventional aircraft during takeoff and landing, and near-silent when flying overhead. This new investment brings the Company's total funding, including previous rounds, to **\$720 million**.

<https://dronelife.com/2020/01/21/the-model-for-urban-air-mobility-that-big-money-is-backing-toyotas-394-m-investment-in-passenger-drones/>



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### DJI Mavic helps hurt hiker rappel 400 ft during rescue at Snow Canyon State Park, UT [Haye Kesteloo](#) Jan. 21st 2020



A [drone played a critical role](#) in the rescue of a 65-year-old woman who got hurt hiking on top of Island in the Sky at Snow Canyon State Park, UT around noon on Sunday.

The woman had fallen several feet and could no longer put any weight on the injured foot. To help bring her down safely, the search and rescue team planned to rappel her down the mountain. The problem, however, was that they needed a team of four to carry all the rope up the 40-story-high top. So, the team attached 660 feet of twine to the drone and send it up. The twine, in turn, was connected to the main rope that was then pulled up the mountain. *"They just rappelled her off down to there and we carried her out," Cashin said.*

In December last year, a drone outfitted with a spotlight was used to assist a rescue team in the dark while helping a lost hiker on the same mountain. Drones are also used to help locate lost hikers, send messages, and deliver small items such as a radio or a bottle of water.

Three people who had joined the injured woman on the hike were also rappelled off the mountain with the help of the Washington County Search and Rescue team.

<https://dronedj.com/2020/01/21/drone-helps-hurt-hiker-rappel-400-ft-snow-canyon-state-park/>

### Police shoot reporter's drone out of the sky in Mexico [Haye Kesteloo](#) Jan. 21st 2020



In a [short drone video](#) that was shared online, you can hear around 10 shots being fired by a police officer at a reporter's drone before the connection is lost. The shots were fired by a masked agent of the Chihuahua Prosecutor's Office in the municipality of Ciudad Cuauhtémoc.

A journalist who works for the XHEPL radio station in the Chihuahuan municipality narrated the event as it happened. *'To bring to you part of the images that have been generated today, an intense police mobilization by elements of the Prosecutor's Office in the western area that are carrying out a...'* at which point the first shot can be heard and drone seems to have been hit by a bullet.



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Shortly after, at least nine more shots can be heard, and a masked police officer holding a rifle can be seen in the drone video as the unmanned aircraft backs away. The journalist can be heard saying, "Oh, you bastard," followed by, "He's mine, he is mine." Soon after, the transmission signal stops. <https://dronedj.com/2020/01/21/police-shoot-reporters-drone-out-of-the-sky-in-mexico/>

### ExxonMobil digitizes entire drone inspection process Jan 20, 2020



Energy firm [ExxonMobil](#) has expanded its partnership with [data and analytics](#) firm HUVRdata to digitize and standardize drone inspection across global sites and assets. HUVRdata is providing its data and analytics platform for central and secure management, processing and storage of data acquired from drones during the inspection of energy assets.

The two have been working together to develop the platform over the past two years. ExxonMobil staff will be able to access, via smartphones, images of energy infrastructure shot by the drones to **identify asset anomalies**. <https://www.smart-energy.com/industry-sectors/energy-grid-management/exxonmobil-digitises-entire-drone-inspection-process/>

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### Satellite propulsion startup Dawn Aerospace developing small launch vehicle Caleb Henry January 21, 2020



*Dawn Aerospace built this Mark 1 demonstrator of a drone that would carry a rocket halfway to space. The startup is developing a larger Mark 2 version for suborbital flights.*

WASHINGTON — A green propulsion startup with more than \$1 million in sales says it is gaining traction in the smallsat market while funding its own small launch vehicle.

Dawn Aerospace, based in New Zealand and the Netherlands, has its first propulsion system launching in March on a D-Orbit cubesat aboard a Vega rocket. A second is scheduled to launch on an Indian PSLV in the second quarter of 2020 on a cubesat for Hiber, a Dutch Internet of Things startup. Dawn Aerospace also has contracts from the New Zealand Space Agency and the U.S. Air Force.



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Formed in late 2017, Dawn Aerospace has raised a little over **\$2 million**. Tuhua Ventures, a firm that invests in New Zealand startups, led the company's seed round in 2018. "The idea is to be able to commercialize something very early, to help fund future launcher development," said Joshua **Rea**, who does business development at Dawn Aerospace, said.

Dawn Aerospace is commercializing thrusters that use nitrous oxide and propene instead of hydrazine. Its 5-pound-force thruster is produced without components restricted by U.S. International Traffic in Arms Regulations. The company built three flight-ready propulsion systems for cubesats in 2019 and eight larger thrusters for microsattellites. This year the company aims to build 50 cubesat thrusters and 100 microsat thrusters.

The company is using revenues from those sales to develop a drone-launched rocket system. Rea said the uncrewed spaceplane would fly above 100 kilometers, reaching a speed of 4-kilometers per second. An expendable two-stage rocket would then vault "several hundred kilograms" into low Earth orbit. <https://spacenews.com/satellite-propulsion-startup-dawn-aerospace-developing-small-launch-vehicle/>

### **Survey: More Than a Third of Consumers Prefer Drone Delivery** Jason Reagan January 21, 2020



The popularity of drone delivery is changing consumer preferences according to a [new survey of 528 online shoppers](#) by a B2B review platform.

The report by Clutch found 36 percent of online shoppers say they would be more likely to purchase an item if it were delivered by drone. However, 39 percent say a drone delivery option wouldn't affect their purchasing decision and 25 percent would be less likely to

trust a drone.

Online shoppers worry about drones damaging packages during delivery (20 percent), getting stolen or hacked (19 percent) or replacing jobs (18 percent). Dan Khasis, CEO of [Route4Me](#), a route optimization software, said strong winds or severe weather could curtail a drone's effectiveness in making deliveries.

However, if 2020 mirrors this past year, drone delivery technology will continue to grow and maybe become the "new normal:" <https://dronelife.com/2020/01/21/survey-more-than-a-third-of-consumers-prefer-drone-delivery/>



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### DJI Case Study Highlights the Benefits of Drones in Logistics Industry Malek

Murison January 21, 2020



Danish logistics and international shipping giant, DFDS, has been **combining drones and AI** to streamline terminal operations. DFDS provides transportation services, supply chain solutions and warehouse management, handling millions of trailers every year.

The company has been exploring the potential for drones to improve freight inspections at their harbor terminals. Locating individual trailers has long been a pain point and an unavoidably manual task.

The company consulted UAS Denmark. That led to a partnership with drone software developer Lorenz Technology that worked with DJI's Zenmuse XT2 with visual and thermal sensors capable of supporting AI features, such as identifying objects.

The solution allowed the drones to fly autonomously around the terminal, pinpoint and relay the exact locations of each and every trailer by recognizing their unique IDs. As a result, truck drivers could quickly find their load in the terminal, saving time and streamlining the logistics process for all parties.

The ability to identify and confirm the position of trailers **saved on average 15 minutes** during loading and discharging trailers from vessels. In turn, there were significant fuel savings and a reduction of CO2 emissions, manpower and costs. <https://dronelife.com/2020/01/21/dji-case-study-highlights-the-benefits-of-drones-in-logistics-industry/>

**23Jan20**

### Uber's Aerial Rideshare Project 'Entering the Next Phase' Brian Garrett-Glaser January 22, 2020



*Uber's Elevate project is "right on target," the company said at a vertical flight conference in San Jose.*

**SAN JOSE, Ca.** — The company says progress is “right on target” — and the FAA, NASA, and a number of billion dollar companies are on board.



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Speaking at the Transformative Vertical Flight conference in San Jose, Mark Moore, Uber's director of aviation engineering, said, "We're entering the next phase of Elevate, which is all about the preparation of cities for these incredible vehicles which we're all realizing are very real and well along the path of certification," said Moore. Uber Air is slated to launch in Los Angeles, Dallas and Melbourne in 2023.

The FAA has also signaled progress on aircraft certification. Last week, Jay Merkle, head of the agency's unmanned aircraft integration office, said [six aircraft intended for urban air mobility applications are "well along"](https://www.aviationtoday.com/2020/01/22/ubers-aerial-rideshare-project-entering-next-phase/) in the type certification process, insisting that **new regulations will not be needed** to certify and operate these new aircraft.

<https://www.aviationtoday.com/2020/01/22/ubers-aerial-rideshare-project-entering-next-phase/>

### **Boeing to Explore Developing Israeli Ducted Fan Rotor Technology** January 22, 2020 News



Boeing has signed an agreement with Israel-based Tactical Robotics to explore the development of a ducted fan propulsion technology with potential uses for piloted and autonomous light aircraft.

Through a joint working group, the two companies will determine what opportunities may exist in developing, producing and marketing Fancraft™ – based vertical takeoff and landing products including Cormorant. Due to its compact, Humvee-sized footprint, Cormorant can conduct emergency response missions such as delivering food, water, and supplies during natural disasters or in combat environments. It can also carry up to four patients for medical evacuations.

Aviation ducted fan technology uses a fan mounted in a cylindrical duct to produce thrust. This arrangement can efficiently enhance airflow velocity and pressure when compared to an open rotor. There are also safety advantages when compared to unshielded blades on traditional rotorcraft. [https://uasweekly.com/2020/01/22/boeing-to-explore-developing-israeli-ducted-fan-rotor-technology/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_22\\_2020&utm\\_term=2020-01-22](https://uasweekly.com/2020/01/22/boeing-to-explore-developing-israeli-ducted-fan-rotor-technology/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_22_2020&utm_term=2020-01-22).



## UAS and SmallSat Weekly News

### **UK police warn criminals: ‘You won’t be able to hide from our new drone’** [Haye Kesteloo](#) Jan. 22nd 2020



In the [UK](#), the police have warned criminals, “You won’t be able to hide from our new drone,” which can track suspects fleeing crimes such as burglary and robbery. As part of a new drone team at the Nottinghamshire Police, 15 officers are being trained as drone pilots. Once the officers arrive at the scene of a crime, a drone can be deployed within eight minutes.

Already, the drone has assisted officers in finding ‘three to four’ missing people by searching vast areas of land that were difficult for police to access. It also has a heat sensor and is being used to support the fire service to detect whether people are trapped inside burning buildings.

On Monday, January 6, the official drone launch day, the technology helped track two suspects who had fled the scene of a jewelry burglary in Keyworth.

Inspector Dean Gallacher, the drone team leader said: ‘Criminals do fear drones because it is the unknown. It is that paranoia and it disrupts criminality. They don’t know where we are going to be. You can read the entire article [here](https://dronedj.com/2020/01/22/uk-police-warn-criminals-you-wont-be-able-to-hide-from-our-new-drone/). <https://dronedj.com/2020/01/22/uk-police-warn-criminals-you-wont-be-able-to-hide-from-our-new-drone/>

### **Public Supports More Drone Use In Return For Tighter Controls** Jess Brown January 22, 2020



A report recently commissioned by [Vodafone](#) has found that more than four out of five people in the UK support the greater use of drones by the emergency services, as long as stringent safety, security and monitoring measures are in place. The survey made several recommendations for overall drone policy including a “blue light” fund for drones in the emergency services and the

creation of a traffic management system to help co-ordinate drone flights with other airspace use. The research found:

- 86% of those asked support the idea of using drones to support emergency response
- 79% of those agree with the idea of drones being used to assist the police
- 61% of those agree with drones helping to monitor with environmental conservation

Vodafone UK chief executive, Nick Jeffery, comments:



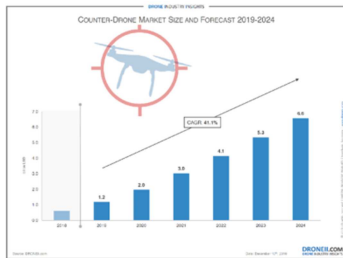


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“Drones can provide crucial information to emergency services responding to incidents. They can assess fires, deliver medical supplies and help businesses survey hazardous conditions such as construction sites, power lines and our own mobile masts quicker and more safely”.

“On the flip side, rogue drones can pose security risks. However, by working in collaboration with the government, the public sector and regulators, we can shape legislation to ensure the transition from a consumer toy to a vital support service whilst protecting our critical infrastructure.” [https://www.coverdrone.com/public-supports-more-drone-use-in-return-for-tighter-controls/?utm\\_source=Coverdrone+email+subscribers&utm\\_campaign=6a1f8cf340-Coverdrone+Email+Campaign+23.01.20&utm\\_medium=email&utm\\_term=0\\_3033eb7817-6a1f8cf340-113470153](https://www.coverdrone.com/public-supports-more-drone-use-in-return-for-tighter-controls/?utm_source=Coverdrone+email+subscribers&utm_campaign=6a1f8cf340-Coverdrone+Email+Campaign+23.01.20&utm_medium=email&utm_term=0_3033eb7817-6a1f8cf340-113470153)

### What Opportunities Exist in the Counter-Drone Market? Jeremiah Karpowicz JANUARY 22, 2020



We’ve attempted to lay out what people [need to know](#) about counter-drone / anti-drone technology, but it’s a segment of the overall drone industry that continues to evolve at a rapid pace. Many organizations are attempting to [tailor a counter-drone solution](#) to fit specific security needs, but what are some of the logistics associated with that approach? Which companies can support it, and what are the regulatory limitations with that kind of system?

The [Counter-Drone Market Report](#) from the team at [DRONEII](#) explores these specific details for the benefit of anyone attempting to assess and answer these questions. Their report lays out what the counter-drone industry actually looks like, highlights which companies have relevant products in it and where counter-drone regulations currently stand across the world.

To get a better sense of the insights that are available in the full report, we connected with Kay Wackwitz, CEO of DRONEII. We’ve talked to him about everything that’s impacting the drone market from [disruption](#) to [partnerships](#) to how information gathered via drone can [impact decisions at scale](#), but we used this opportunity to focus on how counter-drone solutions are going to make a difference in 2020. See the interview at:

[https://www.commercialuavnews.com/security/what-opportunities-exist-in-the-counter-drone-market?utm\\_source=marketo&utm\\_medium=email&utm\\_campaign=newsletter&utm\\_content=newsletter&mkt\\_tok=eyJpIjoiTUdVd04yTmtOek0zWldZMyIsInQiOiJvRE41T1VYbDBpZkdwcDISXC9wUXJyTTZMejZUFNTTDE0K25VbUZh0R1eXJyNDBCzmw2K0ZpZ21TN3IcLzRzODJXC9RN1p6MVB3M21CZUZiKzVLWlprV2Z5ZnZrWDDwbmtaK25uWklBVmFMeGFOalpwGIVS2FrQnh0QXcwSSttQyJ9](https://www.commercialuavnews.com/security/what-opportunities-exist-in-the-counter-drone-market?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTUdVd04yTmtOek0zWldZMyIsInQiOiJvRE41T1VYbDBpZkdwcDISXC9wUXJyTTZMejZUFNTTDE0K25VbUZh0R1eXJyNDBCzmw2K0ZpZ21TN3IcLzRzODJXC9RN1p6MVB3M21CZUZiKzVLWlprV2Z5ZnZrWDDwbmtaK25uWklBVmFMeGFOalpwGIVS2FrQnh0QXcwSSttQyJ9)



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### Draganfly Releases New Payloads to Increase Efficiency and Data Collection

**Quality** January 22, 2020 News



The Corning microHSI hyperspectral sensor is capable of recording up to 155 user-selectable light bands, which allows researchers to narrow their focus to the specific light spectrums they want to target. This sensor is being used across various industries

including precision agriculture, environmental monitoring, and oil & gas. Draganfly now offers and supports this sensor package on the Draganflyer Commander UAV platform as well as the DJI M600 Pro.

The first of two dual-sensor packages is the 100MP Phase One Industrial iXM-100 still camera paired with the MicaSense RedEdge-MX multispectral 5-band sensor which offers simultaneous capture of multispectral and high resolution visual imagery. What makes this payload package more powerful is the payload control system that allows for geo-referencing and automatic, simultaneous camera shutter and data logging. This dual payload is available now and supported on the DJI M600 Pro platform.

The second of the two dual-sensor packages is the 42MP Sony a7R still camera paired with the MicaSense RedEdge-MX multispectral 5-band sensor. This offers simultaneous capture of multispectral and high resolution visual imagery at a more attractive price point.

[https://uasweekly.com/2020/01/22/draganfly-releases-new-payloads-to-increase-efficiency-and-data-collection-quality/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_01\\_23\\_2020&utm\\_term=2020-01-23](https://uasweekly.com/2020/01/22/draganfly-releases-new-payloads-to-increase-efficiency-and-data-collection-quality/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_23_2020&utm_term=2020-01-23)

**24Jan20**

### Drone sent into Henty Gold Mine to find missing worker [Josh Spires](#) Jan. 23rd 2020



Earlier this week, a Tasmanian [gold mine](#) collapsed during the early hours of the morning with workers still inside. A drone was sent in to help with the search and rescue mission. In addition to the drone, a robotic camera was also used.

However, one worker is still yet to be found by police, fire, and rescue, along with a mine rescue team.



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The [search and rescue team](#) sent in a drone equipped with a thermal camera along with a robotic camera to check for signs of life. Unfortunately, the man is still missing, and police have “grave fears” for his safety.

It’s great to see [drones](#) being used in an area and in conditions they are designed for. As the mine site was still unsafe to enter, using a drone was the right choice and likely saved more lives. <https://dronedj.com/2020/01/23/drone-gold-mine-find-missing-worker/#more-23231>

### **JAL to test drone flights for medical supply delivery** Alfred Chua 23 January 2020

Japan Airlines has signed a cooperation agreement with the Japanese city of Yabu to launch unmanned aerial vehicle test flights to transport medical supplies. JAL is hoping to conduct the maiden sortie this spring. The expected route will span about 25km, from a hospital to a clinic and over a river.



Since last year, JAL has been in discussions with UAV firm Terra Drone to perform demonstrations of fixed-wing drones

As part of the agreement, JAL will provide operational knowledge, while the city officials will be responsible for coordinating with the local community for the demonstration. Terra Drone will contribute its technical expertise for the

operation of its drones.

The city of Yabu is currently tapping on drones for agricultural purposes and is looking to expand their usage to other purposes. “Through these demonstrations, Yabu City will work on the deregulation of UAV technology, aiming to assist unpopulated regional areas in Japan,” the JAL media release states. <https://www.flightglobal.com/aerospace/jal-to-test-drone-flights-for-medical-supply-delivery/136339.article>

### **Drone budgets in the UK are ‘being withheld’ until Brexit is over, COPTRZ claims**

BUSINESS FINANCIAL HEADLINE NEWS INVESTMENT UK SAM LEWIS on JANUARY 22, 2020



Commenting on the state of the UK’s drone market, COPTRZ managing director, Steve Coulson, said: “The uncertainty of Brexit



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means budgets are being withheld or elsewhere spent until the country knows and understands what changes will occur.”

“It’s our mission to ‘Revolutionise Organisations Using Drones’, and to do that we’ve got the **most complete range of commercial drones in the world**, an offering that we must continuously innovate and improve on to ensure our customers receive the best drone solutions. “We find that constantly evolving legislation causes caution around commercial drone practices.

“Awareness and the cascade of clear information are key to ensure that we help our clients understand the full potential of the drone industry.” This interview was part of *CDP*’s Special Report series. Read the February Special Report [below](#):

[https://www.commercialdroneprofessional.com/coptrz-says-drone-budgets-are-being-withheld-until-brex-it-is-over/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-322032-Commercial+Drone+Professional+DNA+-+2020-01-22](https://www.commercialdroneprofessional.com/coptrz-says-drone-budgets-are-being-withheld-until-brex-it-is-over/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-322032-Commercial+Drone+Professional+DNA+-+2020-01-22)

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