



UAS and SmallSat Weekly News

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22Aug20

US Army's new drone sensor can detect and dodge live power lines Josh Spires Aug. 21st 2020



The [US Army](#) Combat Capabilities Development Command's Army Research Laboratory has developed drone sensor and software to detect power lines. David Hull, an army researcher, has developed a **new way** to do this by using field and 3D sensors with low power-processing methods.

Power lines are small and difficult to see with radar or optical sensors, but they generate large fields that can be easily detected with low-power, low-cost, passive electric- and magnetic-field sensors.

The lab has announced a patent license deal with Manifold Robotics, who will begin producing the sensor package for use on commercial drones. Manifold Robotics wants to create a power line detection system that uses the sensor to ensure the drone avoids the power lines while still being able to fly its mission autonomously. The team eventually hopes to see the sensor being used in automated power line inspections as well as improving the safety of beyond visual line of sight flights. <https://dronedj.com/2020/08/21/us-armys-new-drone-sensor-can-detect-and-dodge-live-power-lines/#more-34307>

23Aug20

Vancouver Police use drone, thermal imaging to locate swimmer evading officers Aug 20, 2020 Megan Lalonde



Vancouver's Hadden Park

Vancouver police used a drone and thermal imaging technology to apprehend a man who jumped into the water in an attempt to evade officers Tuesday evening.

Officers were called to the scene at Kitsilano's Hadden Park shortly after 6 p.m. on Tuesday, where passerby had reported seeing a man acting paranoid, appearing agitated and speaking in nonsensical sentences. While officers were speaking with the man, he reportedly fled into the water and began swimming away. Police said he climbed into "several boats," repeatedly jumping back into the water.



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Vancouver police deployed a drone equipped with thermal imaging to keep track of the man's location during his aquatic excursion. The Canadian Coast Guard assisted VPD officers with the call, which ended when the man eventually boarded a Coast Guard vessel following his rescue. Officers subsequently took the man to hospital to be assessed by psychiatric doctors. <https://www.vancouverisawesome.com/vancouver-news/vancouver-police-drone-thermal-imaging-locate-swimmer-evading-officers-video-2653555>

Singapore's drone sector takes off with more potential for range of uses Zhaki Abdullah 20 Aug 2020



ST Engineering's DrN-15L drone was used to deliver five packets of ayam penyet from the Marina South Pier to a vessel located 3km offshore

SINGAPORE: The drone industry in Singapore is taking off, with more companies turning to unmanned aerial vehicles for purposes like infrastructure inspection and deliveries. In April, local start-up F-Drones became the first company to conduct drone deliveries here. It signed a one-year deal with shipping giant Eastern Pacific Shipping that kicked off with a delivery from Marina South Pier to a vessel anchored 2.7km offshore.

Another start-up, Aerolion Technologies, was granted funding by government agencies to develop a building cleaning drone. It also recently won a contact with water agency PUB to deploy drones for canal inspections. And last Thursday, foodpanda announced that it is partnering ST Engineering to test the use of drones for food deliveries, as it flew five packets of ayam penyet to a ship 3km offshore.

The Singapore Unmanned Aircraft System Community, which represents the interests of the nascent industry, has seen an increase in the number of member organizations from 22 last year to 39 currently. <https://www.channelnewsasia.com/news/singapore/drone-sector-growing-singapore-unmanned-vehicles-deliveries-13023730>



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24Aug20

Ambulance Drones: EHang Joins Ambular Miriam McNabb August 21, 2020



[EHang Holdings](#) has announced that it has been selected to join [Ambular](#), an international project to design the ultimate emergency vehicles: ambulance drones. “Supported by the International Civil Aviation Organization, the project also seeks to inspire the global aviation community to unleash the potential of electric vertical takeoff and landing aircraft.

EHang has worked to demonstrate the variety of uses for cargo transport, search and rescue, [emergency response](#) and [firefighting](#). Now, EHang is taking part in an international project to develop ambulance drones. With a proven platform, EHang will contribute the necessary hardware (such as rotors and motors) to the *Ambular* project.

<https://dronelife.com/2020/08/21/ambulance-drones-ehang-joins-ambular/>

FAA gets serious about protecting airplanes from rogue drones Brittany A. Roston - Aug 23, 2020



The Federal Aviation Administration has announced a new plan under its Airport Unmanned Aircraft Systems Detection and Mitigation Research Program that will evaluate new systems and various technologies intended to protect airplanes from drones. According to the agency, it will analyze at least **10** of these systems starting later this year.

We’ve seen a number of technologies proposed as potential solutions for this problem including enabling airports to better spy these drones, wireless systems designed to disrupt a drone’s ability to receive commands and even shooting nets to knock them out of the sky.

The FAA [plans to get involved](#) in this budding industry, announcing last week that it plans to evaluate numerous options that will potentially equip airports with a way to deal with unwanted drones. The evaluations will kick off at the agency’s William J. Hughes Technical Center near the **Atlantic City** International Airport in New Jersey.

Following that initial testing, the FAA plans to expand its evaluation to **another four US airports**, though it hasn’t yet revealed which ones will be chosen. The FAA is accepting proposals from vendors, manufacturers, and others that have developed systems for detecting and mitigating



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drone threats; they have 45 days to get in touch with the agency. <https://www.slashgear.com/faa-gets-serious-about-protecting-airplanes-from-rogue-drones-23634640/>

DASA's 245 innovation fast-tracks and £42m boost to business makes for record year APPLICATION BUSINESS FINANCIAL HEADLINE NEWS ALEX DOUGLAS AUGUST 24, 2020



DASA assessed more than three proposals a day (**1,172**) from innovators during 2019/2020 with 55% of all contracts awarded to small and medium-sized enterprises, according to its third annual review published today.

The review shows that DASA helped give business and investment coaching to 15 companies that pitched for private sector investment of more than £40m. The document also identifies key lessons learnt from the year and what next steps DASA will take. The annual review highlights several case studies of projects funded through DASA that are already achieving impact, including in autonomous systems, **swarm drones**, and data.

Head of DASA, Anita Friend, said: "The threats faced by the United Kingdom and our allies continue to be complex and are intensifying and evolving at a relentless pace. Events over the last 12 months highlight the essential need for novel and innovative approaches if we are to maintain advantage over those who wish to cause harm to our country and our people."

<https://www.commercialdroneprofessional.com/dasas-245-innovation-fast-tracks-and-42m-boost-to-business-makes-for-record-year/>

US Transportation Secretary announces \$7.5 million for UAS airspace

integration research August 24, 2020 Philip Butterworth-Hayes UAS traffic management news



On August 21 US Transportation Secretary Elaine L. Chao announced the Federal Aviation Administration was awarding \$7.5 million in research, education, and training grants to universities that comprise the agency's Air Transportation Center of Excellence for Unmanned Aircraft Systems, also known as the Alliance for System Safety of UAS through Research Excellence. "This \$7.5 million federal investment will fund university research on the safe integration of drones into our national airspace."

The following information summarizes the 19 grant awards for the eight projects. The [COE universities](#) received a total of \$7,495,178 to advance specific goals and projects. This is the third round of grants for FY) 2020. These grants bring the FY 2020 year-to-date award amount for this COE to **\$13,363,638**. The grant awards include:



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- Validation of Low-Altitude Detect and Avoid Standards–Safety Research Center
 - Safety Risks and Mitigations for UAS Operations On and Around Airports
 - Science and Research Panel Support
 - Identify Wake Turbulence and Flutter Testing Requirements for UAS
 - Urban Air Mobility: Safety Standards, Aircraft Certification and Impact on Market Feasibility and Growth Potentials
 - UAS Standards Tracking, Mapping and Analysis
 - Cybersecurity and Safety Literature Review
 - Validation of ASTM Remote ID Standards–Safety Research Center
- <https://www.unmannedairspace.info/uncategorized/us-transportation-secretary-announces-usd7-5-million-for-uas-airspace-integration-research/>

Ascent AeroSystems Announces Final Delivery of Its Spirit Drone to Dynetics

2020-08-24 Press UAV Expert News



With a unique cylindrical configuration that's more portable and rugged than conventional multi-rotor drones, Ascent's coaxials are ideal for mission-critical operations in the toughest environments. The delivery of vehicles provided an opportunity for Dynetics to validate the vehicle's performance characteristics and develop new payload systems that will provide additional capabilities for customers in the defense and intelligence communities.

https://www.uavexpertnews.com/2020/08/ascent-aerosystems-announces-final-delivery-of-its-spirit-drone/?utm_source=Master&utm_campaign=403be89fa5-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-403be89fa5-89168288

25Aug20

FAA plans to test drone countermeasures in Atlanta Scott Simmie Aug. 24th 2020



The Federal Aviation Administration is pushing ahead on plans to test multiple drone detection and countermeasure systems for suitability at airports. It has issued a call for White Papers from those who have technology they would like considered. The first tests will soon be carried out in Atlanta. It's part of the FAA's

Airport Unmanned Aircraft Systems Detection and Mitigation Research Program. The purpose is



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to help the FAA identify potential manufacturers, vendors and systems integrators of drone detection and mitigation technologies.

The technology will involve radar, radio waves, or other methods that could mess with complex airport communications. In fact, the FAA must work closely with Defense, Homeland Security, and other agencies.

The FAA intends to evaluate at least 10 technologies/systems that have the ability to detect and/or mitigate UAS in a civil airport environment. The successful applicants must train FAA personnel on how to operate their technologies. The applicants won't be allowed to operate the technologies themselves during the test. The initial phase of the program is slated to last three or four months. That period includes installing the technology, training the FAA and testing, followed by the removal of the product. <https://dronedj.com/2020/08/24/faa-to-test-anti-drone-countermeasures/>

Amazon's drone will pull you up a mountain, replacing ski lifts Josh Spires Aug. 24th 2020



[Amazon's](#) latest drone patent points at a new way of using a drone that doesn't involve delivering packages. Amazon wants to replace ski lifts. The drone uses a rope to pull people up the side of a mountain, just like [Casey Neistat did in this video](#) in December 2016.

Instead of hopping on the [normal ski lift](#), you wait for a drone to come to your location. It will then lower the rope and wait for you to hold on. Once you grab it, the drone begins to pull you up the side of a mountain. The drone receives your location via a phone app message — kinda like Uber for drones. The patent also says the drone can be used for other activities that involve a person being pulled, such as wakeboarding and water skiing.

The patent says that extreme skiers can use the drones to take them up to remote ski areas that aren't serviced by the lifts. If you were in trouble, you could also call the drone to pull you back to safety. <https://dronedj.com/2020/08/24/amazons-drone-will-pull-you-up-a-mountain-replacing-ski-lifts/>



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Tactical BVLOS Waiver: Enabling Public Safety Drone Programs Miriam

McNabb August 24, 2020



Last week, at the FAA UAS Symposium, the FAA unveiled the new [Public Safety Tactical Beyond Visual Line of Sight \(TBVLOS\)](#) waiver for first responders. The Tactical BVLOS waiver provides public safety professionals with permission to fly beyond visual line of sight when it counts most – in cases of extreme emergency.

“In a time of extreme emergencies to safeguard human life, first responders require the capability to operate their unmanned aircraft beyond visual line of sight to assess the operational environment such as a fire scene at a large structural fire, to conduct an aerial search on a large roof area for a burglary in progress, or to fly over a heavily forested area to look for a missing person...,” says [FAA guidance](#). Flight beyond visual line of sight (BVLOS) can be absolutely critical to the safety of first response teams. While BVLOS flight sometimes implies distance, in other situations it may mean flying on the other side of a tall building or around a corner in an urban environment.

In fact, as Chief Charles Werner, Director of DRONERESPONDERS Public Safety Alliance explains, there are many situation where remaining in visual line of sight for the remote pilot or visual observer places them in danger: in active shooter or hostage situations; hazardous material incidents which may include chemical, biological, or explosive environments; SWAT operations; search and rescue in hazardous terrain; bomb threats; fires; and more.

<https://dronelife.com/2020/08/24/tactical-bvlos-waiver-enabling-public-safety-drone-programs/>

Australian inquiry wants advanced drones to aid firefighters Josh Spires Aug. 25th 2020



An inquiry into the recent [bushfires](#) that swept through much of Eastern [Australia](#) is calling for more advanced drones and remote sensors to be used by firefighters and for them to have access to more data and AI to better understand the fire.

The [recent inquiry](#) saw 76 recommendations made to improve the preparedness next time a wildfire comes through, and they were accepted by New South Wales. They include the creation of a database to monitor trends, make New South Wales a world center for bushfire research and the use of advanced technology to aid in bushfire prevention and firefighting.



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The inquiry points out the use of sensing technologies to allow fire crews to better prepare and understand what it is causing the bushfires. It will also allow atmospheric data to be linked to bushfires so firefighters can be prepared for when a fire is likely to start.

During the recent fires, drones were sent up to provide aerial intelligence and data to the firefighters on the ground. The drones **proved their worth** and now will play an even larger role in the future. Drones were also heavily used during the **rebuilding stage**, with many drones being sent out to survey the damage. A main use was to find stranded or injured **animals** once the fire had passed. Helicopters were also used to drop food to animals with the future possibility of drones taking on this role. <https://dronedj.com/2020/08/25/australian-inquiry-wants-advanced-drones-to-aid-firefighters/>

My all-time favorite DJI drone video Scott Simmie Aug. 25th 2020



I know two of the people who were involved in this production. Brent Foster is a Canadian filmmaker and was one of the earliest cinematographers to use drones. Another one of the filmmakers on the trip, Pawel Dwulit, runs production company [Paradigm Pictures](#) and also incorporates drone visuals into much of his work.

Back in 2016, they collaborated on a production for DJI World that took them — plus all of their gear, including a zillion batteries — to the southern reaches of South America.



That's Heraldo Riel, whom you'll meet in a moment...

Specifically, they traveled to the remote region known as Patagonia. It involved flying to Santiago, taking a smaller hired aircraft, a super long car drive — followed by multiple days by horseback.

I couldn't tell you precisely what it is about this video that appeals to me so much. The visuals, the editing, the music — everything just pulls together with synergy in this production. Of course, the best part is that Heraldo Riel has a fascinating story. And, without further adieu, here it is: <https://dronedj.com/2020/08/25/classic-dji-drone-video-a-work-of-art/>



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26Aug20

Natural gas and methane industries pave way to UAV opportunities APPLICATION BUSINESS HEADLINE NEWS MINING AND AGGREGATES ALEX DOUGLAS APRIL 24, 2020



The natural gas and methane industries could play a key role in reducing the severity of the COVID-19 reactions which varies notably from region to region around the world.

Speaking with Commercial Drone Professional, this is what Pergam Suisse's Aaron Bufton had to say:

A growing body of research is linking part of the underlining cause of the variation to air pollution. [One study](#) concludes "a small increase in long-term exposure to fine particulate matter air pollution leads to a large increase in COVID-19 death rate."

Cleaner burning than other fossil fuels, the combustion of natural gas produces negligible amounts of sulfur, mercury, and particulates. Burning natural gas does produce nitrogen oxides (NOx), which are precursors to smog, but at lower levels than gasoline and diesel used for motor vehicles.

Reductions in these emissions translate into public health benefits, as these pollutants [have been linked](#) with problems such as asthma, bronchitis, lung cancer, and heart disease.

Natural gas which is at least 90% methane gas can rightfully earn the title as a "bridge fuel" or an "electrical grid stability fuel" as regions move to reduce greenhouse gas emissions. <https://www.commercialdroneprofessional.com/exclusive-natural-gas-and-methane-industries-pave-way-to-uav-opportunities/>

Drone photographer's stunning images of the world from above MAILONLINE REPORTER 16 August 2020



Johan Vandenhecke taught himself drone photography by watching 'a ton of YouTube videos' – and it's clear he was paying attention, because his aerial snaps are sensational.

And now he's set up a drone photography masterclass to save budding amateurs the hassle of churning through endless online videos like he did.

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robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com



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Scroll through to see more of his amazing work... <https://www.dailymail.co.uk/galleries/article-8632761/Drone-photographers-stunning-images-world-above.html>

Bristol Aerospace Company Unveils Winged E-Taxi for Commuters Charlotte Ryan August 26, 2020



Commuters traveling between London and Brighton could be making the trip via air taxi as soon as 2024.

Bristol-based Vertical Aerospace has just unveiled plans for a winged taxi that could make the 47 mile trip in as little as 30 minutes (the journey typically takes an hour by train). A model prototype will be completed by September 2021, the company said.

The startup plans to manufacture the VA-1X, capable of carrying up to five people including the pilot, in the U.K. The emissions-free plane will reach cruise speeds of 150 miles per hour.

“We know ground-based congestion is already a problem and infrastructure can’t keep up,” said Chief Executive Officer Michael Cervenka. “While none of us would say an aircraft carrying four or five people is the silver bullet to solve all of that, it clearly has a role to play.”



Cervenka, who formerly worked on a flying taxi concept for Rolls-Royce Holdings Plc, said such a model is now becoming viable, commercially, given today’s technology. The VA-1X will be powered by lithium-ion batteries. The aircraft is a tilt-rotor concept—the four front fans tilt from pointing upwards to facing forward, enabling vertical takeoff and landing and powering the aircraft during cruise. The rear fans spin during the vertical lift and work to minimize drag during cruise. <https://www.bloomberg.com/news/articles/2020-08-25/bristol-aerospace-company-unveils-winged-e-taxi-for-commuters>

Easy Aerial confirms \$6.15M in Series A funding APPLICATION INVESTMENT ALEX DOUGLAS AUGUST 26, 2020



This funding round was led by the same private investment group that participated in the company’s initial seed rounds totaling \$4.75M between 2017 and 2019. The oversold round, which was closed prior



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to its opening, also saw the participation of several new strategic investors.

The new investment round will enable Easy Aerial to further capitalize on its position as a leading innovator in autonomous monitoring solutions. This includes rapidly scaling to meet growing commercial, government and military demand in both the United States and internationally and adding new sales and support offices in Israel.

<https://www.commercialdroneprofessional.com/easy-aerial-confirms-6-15m-in-series-a-funding/>

Avinor ANS begins roll out of first Nordic UTM System APPLICATION BUSINESS NEWS

UK ALEX DOUGLAS AUGUST 26, 2020



Avinor Air Navigation Services is working with Frequentis and Altitude Angel to **implement** an unmanned traffic management system at 18 airport towers across Norway. The UTM system provides an operational overview of the airspace and allows two-way communication between air traffic control and drone operators, enabling safe drone use.

The UTM project in Norway supports the Norwegian governments drone strategy for the increased safe use of drones, and to tackle the rising number of reported incidents and airspace violations. With the UTM solution, Norway’s Air Navigation Service Provider, Avinor ANS, has the means to accelerate the safe integration of drones, evolving the commercial use of the technology to generate sustainable revenue streams.

<https://www.commercialdroneprofessional.com/avinor-ans-begins-roll-out-of-first-nordic-utm-system/>

DJI AirWorks: Using drones for public safety during COVID-19 Scott Simmie Aug. 26th

2020



DJI has released a new guide based on the use of drones during the pandemic by the Public Safety sector. The guide is kind of a ‘Best Practices’ for drone use by First Responders and other professionals during the pandemic. The challenges presented by COVID-19 and its demands that we

social distance whenever possibly have created additional use-case scenarios for drones.

Headlining the keynote was Romeo Durscher, DJI’s Senior Director of Public Safety Integration. Romeo works closely with First Responders throughout North America, Europe, and beyond.



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Durscher authored the report along with Wayne Baker, a former fire chief who now works with DJI.

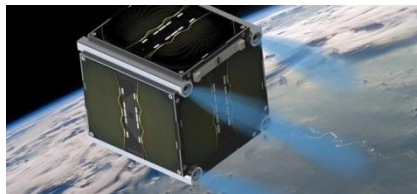
The guide is called [Drones for COVID-19 Public Safety Response](#). And it opens with a useful flow chart to aid with decision-making. Just because you *can* use a drone doesn't mean you *should* use a drone. Formulated by WeRobotics, it takes you through a brief decision chain. That chain will help you determine whether to deploy a UAS during times of crisis:

Durscher spoke about the many ways drones are being used during this pandemic. He also mentioned DJI's Disaster Relief Program aimed at ensuring that First Responders can access the drones they need for the task – either via loans directly through DJI, or via other First Responders. But it's the downloadable guide that goes into a bit more depth.

<https://dronedji.com/2020/08/26/dji-airworks-using-drones-for-public-safety-during-covid-19/>

27Aug20

Morpheus Space's small and simple electric thrusters could upend the satellite industry MARCUS WEISGERBER AUGUST 26, 2020



The Central Intelligence Agency's venture capital firm is among a half-dozen investors in Morpheus Space, a German startup whose novel electric thrusters enable tiny satellites to maneuver and big ones to reduce complexity.

The Dresden-based company said it plans to use the capital to hire employees, increase production and expand its business to the United States. It listed In-Q-Tel along with other investors VSquared Ventures, Lavrock Ventures, Airbus Ventures, Pallas Ventures and TechStars.

The company's thrusters allow even cheap cube satellites to become maneuverable spacecraft, allowing operators to move them for different missions or avoid collisions with space debris. Six Morpheus thrusters are already in space aboard two university satellites. In June, Morpheus thrusters moved a 10-centimeter, or 1U, cubesat out of the path of a disabled Iridium satellite, marking the [first time](#) a satellite of this class performed a collision avoidance maneuver, István Lőrincz, the company's chief business officer and co-founder, said. Without the four electric thrusters, the two satellites would have likely crashed into one another.

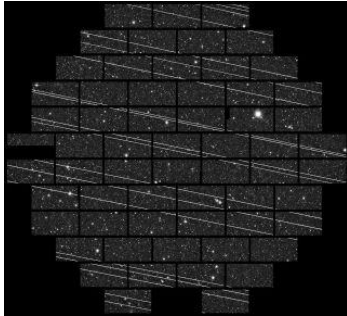
<https://www.defenseone.com/business/2020/08/cias-q-tel-among-backers-german-satellite-thruster-startup/167984/>



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Satellite megaconstellations could have 'extreme' impact on astronomy Mike

Wall a day ago



An image from the Cerro Tololo Inter-American Observatory shows streaks left by Starlink satellites.

Huge constellations of internet satellites could fundamentally change how astronomers study the night sky and how the rest of us experience it.

The potential impacts of megaconstellations in low Earth orbit, such as SpaceX's [Starlink network](#), "are estimated to range from negligible to extreme," according to a report from the Satellite Constellations 1 workshop, which [was released Tuesday](#) (Aug. 25).

SpaceX has already launched about 600 Starlink satellites, and that's just the beginning. Elon Musk's company has approval to operate 12,000 Starlink spacecraft and has applied for permission for up to **30,000 more**. And SpaceX is not alone; for example, Amazon aims to launch about 3,200 broadband satellites for its own network, known as [Project Kuiper](#).

For perspective: There are currently about 2,500 operational satellites circling Earth, and humanity has [launched fewer than 10,000 objects](#) since the dawn of the space age in 1957. <https://www.space.com/satellite-megaconstellation-impact-astronomy-report.html>

AirWorks: DJI Launches Inspection Drone Project with Shell Oil Jason Reagan August 26, 2020



John McClain, Chief Drone Pilot, Shell Deer Park Refining

Drone giant [DJI](#) is partnering with energy multinational [Shell Oil](#) to deploy a drone project at [Shell's Deer Park Manufacturing Complex](#).

As a "Solution Development Partner," Shell and DJI will develop and test drone solutions at the 1,500-acre complex in Texas. The program will "allow workers to automate required inspections of critical infrastructure like **flare tips and floating roof tanks** whose condition and activity are difficult to assess from ground level."

"As one of the world's largest energy companies, Shell has provided us with insight into the unique challenges of conducting aerial inspections at one of its largest facilities where infrastructure exceeds the height of 250 feet off the ground," said Cynthia Huang, Director of



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Business Development at DJI. <https://dronelife.com/2020/08/26/airworks-dji-launches-inspection-drone-project-with-shell-oil/>

Mainblades' Autonomous Drone Is Designed to Efficiently Inspect Manned Aircraft João Antunes Infrastructure & Transport AUGUST 24, 2020



Some companies, such as [EasyJet](#), [American Airlines](#), [Air New Zealand](#), and [Austrian Airlines](#), have already run trials with Unmanned Aerial Vehicles to perform automated inspections of manned aircraft. Today, we're writing about [Mainblades](#), a startup creating an innovative, quick, and efficient automated solution to reduce aircraft downtime that is now starting to take off.

Founded in 2017, [Mainblades](#) has been building its software pillars focused on three parts. First is the brains of the drone—the robotic navigation onboard, which is a small module that ties up to a drone and runs various software algorithms; second is the iPad application, used to command and control the process; and third is the intelligence in the cloud, which does the automated damage detection and enables further data analyses. Getting the company to a point where the whole inspection pipeline can be executed autonomously and safely around an aircraft was a technical challenge. https://www.commercialuavnews.com/infrastructure/mainblades-autonomous-drone-is-designed-to-efficiently-inspect-manned-aircraft?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTUdSbFpERmpNbUUyWkRSaCIsInQiOiJmVTRmZDZ1RXUzZHdvRnRPWDZHUzcxTWc5UUUFFV3ICc2EwQ2FCVWdCYjVScmY2b1hIRmVHRE9GcndwMXFEZlcrZTRLZHFCdmJBZGIta21NZzZvUE5EN2VBYUY5a2sxY1ZlaEIMeTFcl1haWG81aG1KbHJkVlJ2RnFIWEIEM09XT1oifQ%3D%3D

DJI Drives the Future Of Commercial Drones At AirWorks 2020 August 26, 2020 News



DJI, the world's leader in civilian drones and aerial imaging technology, today revealed new sensor systems and data integrations for its professional drone platforms at the fifth annual AirWorks conference, as the global coronavirus pandemic spurs massive adoption of drone technology for tasks that must now be performed remotely.

In online AirWorks sessions, industry-leading DJI customers and partners including Shell, Southern Manatee Fire & Rescue and FLIR Systems illustrated how drone technology has



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enabled people and businesses to be more resilient during the COVID-19 era, helping them follow new requirements for social and physical distancing while addressing the growing need for critical services like contactless inspections that drones provide.

DJI executives detailed their vision for the future of DJI's technology and how the commercial drone ecosystem can benefit from new technical achievements. DJI drones will become optimized for integration into leading geospatial information systems and gain new sensors that enable the creation of precise digital twin assets that precisely represent the real world. Additionally, DJI's drone software and developer tools are becoming more robust to support advanced flight operations and industry-specific applications.

https://uasweekly.com/2020/08/26/dji-drives-the-future-of-commercial-drones-at-airworks-2020/?utm_source=rss&utm_medium=rss&utm_campaign=dji-drives-the-future-of-commercial-drones-at-airworks-2020&utm_term=2020-08-27

Shell and DJI Partner to Innovate Drone Technology for the Energy Industry

August 26, 2020 News



DJI, the world's leader in civilian drones and aerial imaging technology, announced a Solution Development Partnership with Shell Oil Company to create, test and deploy DJI drone technology at its Deer Park Manufacturing Complex to improve efficiency and worker safety during industrial inspections and emergency incident response.

“As one of the world's largest energy companies, Shell has provided us with valuable insight into the unique challenges of conducting aerial inspections at one of its largest facilities where infrastructure exceeds the height of 250 feet off the ground,” said Cynthia Huang, Director of Business Development at DJI. “Through our collaboration, DJI will receive valuable first-hand insight into the complexities of deploying drone technology at a world-class refinery, and co-develop new product features like AI Spot-Check that will allow Shell and other innovative energy companies to use drones to safely and easily conduct required inspections of critical infrastructure.”

Already a pioneer in using drone technology, the Shell Deer Park drone team adopted DJI drones in 2016 to reduce the need to work at height while improving safety and cutting the cost of inspections in the process. As a Solution Development Partner, Shell will work with DJI to develop and test advanced drone solutions, like the DJI Matrice 300 RTK, that allow workers to automate required inspections of critical infrastructure like **flare tips and floating roof tanks** whose condition and activity are difficult to assess from ground



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level. https://uasweekly.com/2020/08/26/shell-and-dji-partner-to-innovate-drone-technology-for-the-energy-industry/?utm_source=rss&utm_medium=rss&utm_campaign=shell-and-dji-partner-to-innovate-drone-technology-for-the-energy-industry&utm_term=2020-08-27

FLIR Systems Introduces Vue TZ20 Dual Thermal Camera Drone Payload August 26, 2020 News Photography & Videography



FLIR Systems, Inc. today announced the availability of the FLIR Vue[®] TZ20, the first high resolution, dual thermal sensor gimbal. Featuring both a narrow-field-of-view and a wide-field-of-view 640×512 resolution FLIR Boson[®] thermal camera module, the Vue TZ20 offers greater situational awareness with a 20-times digital thermal zoom capability to complete public safety and industrial inspection missions both near and far.

Paul Clayton, General Manager, Components Business at FLIR Systems said, “Now public safety drone pilots from police, fire, and search and rescue teams, to industrial and critical infrastructure inspectors, will have greater awareness to complete their missions.”

Rated to provide operability in poor weather conditions and weighing just 1.4 lbs., the Vue TZ20 includes a wide-angle Boson with a 95-degree field of view and a narrow-angle Boson with a 19-degree field of view, enabling pilots to put more pixels on target with ease.

https://uasweekly.com/2020/08/26/flir-systems-introduces-vue-tz20-dual-thermal-camera-drone-payload/?utm_source=rss&utm_medium=rss&utm_campaign=flir-systems-introduces-vue-tz20-dual-thermal-camera-drone-payload&utm_term=2020-08-27

Drones Help Bridge the Gaps in Assessing Global Change Lesley Evans Ogden 11 hours ago



As Earth warms, satellite images send strong indications of Arctic greening. But a greening signal belies greater complexity. Climate change brings a ground war to the tundra as plants compete for dominance. In many tundra regions, taller shrubs are invading areas once bare or with short cover like lichen. Understanding Arctic vegetation change is vital to understanding carbon storage and feedback mechanisms to help improve climate change models. But revealing granular details is challenging in an environment that is remote, difficult to access, and sparsely populated.

Even when fitted with fairly simple, off-the-shelf digital cameras, drones can create a clear picture of what’s happening on the ground. Photos of the same thing from different angles,



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stitched together, can produce 3D models. Kerby and Myers-Smith have formed the [High-Latitude Drone Ecology Network](#), creating a standardized protocol for tundra vegetation monitoring.

[Alemu Gonsamo](#), a remote sensing vegetation and climate change scientist at McMaster University in Canada who was not involved in the current study, said that if drone-derived structural measures are properly integrated with lidar and greenness measures, “they provide an unprecedented opportunity to monitor changes both in tundra greenness and canopy structure such as canopy height and aboveground biomass.” <https://eos.org/articles/drones-help-bridge-the-gaps-in-assessing-global-change>

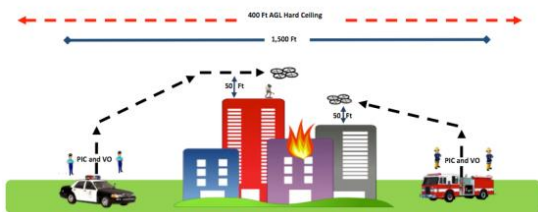
Emerging Tech Showcase webinar Danielle Gagne Commercial UAV News Editor
dgagne@divcom.com



Every year at Commercial UAV Expo Americas, we host a product preview of emerging technologies, but with the pandemic, we are getting a head start on this year's festivities by hosting our first ever Emerging Tech Showcase webinar on [September 2nd from 11:00 AM to 12:30 PM EDT](#). During the presentations, we'll have live staff to answer audience questions in real time from each of the companies, which includes big names like Skydio, RIEGL, Sabrewing, Auterion, Alynix, MicaSense, NARMA, and Ascent Aerosystems. This is a great opportunity for anyone who has interest in these systems to engage in a conversation with designated experts. To join this free presentation you can register [here](https://discover.divcom.com/index.php/email/emailWebview). <https://discover.divcom.com/index.php/email/emailWebview>

Tactical Beyond Visual Line of Sight Waivers Will Enable Drones in Emergency Situations

Jeremiah Karpowicz Public Safety & Emergency Services AUGUST 25, 2020



The way in which drones can serve as a force multiplier to literally save lives have been well documented. Whether it's to [increase firefighter](#) safety, locate a missing person or utilize a drone [as a first responder](#), these results have compelled public safety departments of all sizes

and types to ask [what kind of drone](#) is going to provide these benefits to their communities.

Unfortunately, the way many departments want to utilize drone technology in emergency situations would require them to operate beyond visual line of sight, which falls outside of the Authorization under which most of them are operating their drones. To address this challenge,



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public safety advocates worked with the FAA to [create the Tactical Beyond Visual Line of Sight waiver process](https://www.commercialuavnews.com/public-safety/tactical-beyond-visual-line-of-sight-tbvlos-waivers?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTURaaFlqRTFZemMyTIRJNCIsInQiOiJyYjFtbVZRbmdaN2xXQjdCUG5qcmhrYXZvNXVpYnJlUjdIcFlkWEJUZHZyOSStqU3RXdnVKbWl3bldwSWEyZUhOaUZWSmtpd2FMdFN4eUJXUzgzZjU3dGF4VVArMU1GSHFyVzdpK2trMWhiMWRoZVVMdHBDKzBRZ0NxNXVqZEVRRyJ9). This waiver is the culmination of over nine months of collaboration with York County Fire and Life Safety, Chula Vista Police Department, San Diego IPP, Pearland Police Department, SKYDIO and [DRONERESPONDERS](https://www.commercialuavnews.com/public-safety/tactical-beyond-visual-line-of-sight-tbvlos-waivers?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTURaaFlqRTFZemMyTIRJNCIsInQiOiJyYjFtbVZRbmdaN2xXQjdCUG5qcmhrYXZvNXVpYnJlUjdIcFlkWEJUZHZyOSStqU3RXdnVKbWl3bldwSWEyZUhOaUZWSmtpd2FMdFN4eUJXUzgzZjU3dGF4VVArMU1GSHFyVzdpK2trMWhiMWRoZVVMdHBDKzBRZ0NxNXVqZEVRRyJ9). https://www.commercialuavnews.com/public-safety/tactical-beyond-visual-line-of-sight-tbvlos-waivers?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTURaaFlqRTFZemMyTIRJNCIsInQiOiJyYjFtbVZRbmdaN2xXQjdCUG5qcmhrYXZvNXVpYnJlUjdIcFlkWEJUZHZyOSStqU3RXdnVKbWl3bldwSWEyZUhOaUZWSmtpd2FMdFN4eUJXUzgzZjU3dGF4VVArMU1GSHFyVzdpK2trMWhiMWRoZVVMdHBDKzBRZ0NxNXVqZEVRRyJ9

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Critical shortage: Overburdened drone pilots driven out of Air Force, GAO warns

Mike Glenn - The Washington Times - Thursday, August 27, 2020



The pilots and sensor operators who fly America's military drones have taken on a lion's share of the [Air Force](#) aerial combat missions for more than 20 years.

Since the attacks of September 2001, the demands for remotely piloted aircraft and their two-member crews have grown dramatically. The ability of the craft to linger for an extended period over hostile territory means they can provide critical intelligence and surveillance around the clock and direct bombs to the proper targets if needed.

But the overwhelming demands for RPA missions in recent years has resulted in a critical shortage of pilots, who are officers, and the enlisted sensor operators, according to an analysis by the [Government Accountability Office](#). The [Air Force](#), the congressional watchdog warned, had not done enough to keep the personnel supply lines full.

One result, the [GAO](#) said, was that operators were being forced to perform longer shifts and carry out consecutive missions without taking rest. Many overburdened operators have left the [Air Force](#) for the Air National Guard or for more-lucrative, less-stressful work in the private sector. <https://www.washingtontimes.com/news/2020/aug/27/drone-pilots-driven-out-air-force-stress-poor-work/>



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GSA, DOD Open Bidding on ASTRO Unmanned Vehicle Contract: Top 20 Bloomberg Government August 27, 2020 Chris Cornillie

The General Services Administration is accepting bids on its new multiple-award contract, ASTRO, designed to help the Defense Department develop and maintain manned and **unmanned vehicles**, after posting the [final request for proposals](#) on Aug. 24.

ASTRO is the focus of this week's [Top 20 Opportunities](#). The program consists of ten separate indefinite delivery, indefinite quantity contracts, each supporting a distinct pool of vehicle-related services, and up to **450 total awards** to large, small, and mid-sized businesses. The contract represents a significant opportunity for systems integrators and defense technology companies to generate potentially billions of dollars over the next decade, according to Bloomberg Government's analysis.

Like [OASIS](#), also a multibillion-dollar, multiple-award contract out of GSA, ASTRO has no defined ceiling value. Instead, Defense Department users will be responsible for determining fair and reasonable pricing at the task order level. ASTRO's complex scope and support for emerging technologies, such as **unmanned systems**, artificial intelligence, robotics, predictive maintenance, human-machine interfaces, will likely make it an attractive bid for hundreds of companies. <https://about.bgov.com/news/gsa-dod-open-bidding-on-astro-unmanned-vehicle-contract-top-20/>