



UAS and SmallSat Weekly News

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BAE Systems Selected to Develop Attritable Air Vehicle Systems Under Air Force Program October 22, 2020



ENDICOTT, NY BAE Systems has been awarded a contract from the U.S. Air Force for an attritable air vehicle system for the Skyborg program. Under this program, which has a contract ceiling of \$400 million, the company will compete to develop a digital design for an unmanned aerial vehicle capable of autonomous functions.

The program is intended to create a low-cost aerial vehicle that will partner with manned aircraft to disrupt and defeat adversaries in contested environments.

The UAVs will be designed with BAE Systems' [autonomous systems](#), which include sensors and payloads that communicate across a shared network with manned aircraft. This approach provides the foundation for rapid updates and integration to ensure the fleet is fielding the latest capabilities to defend against emerging threats.

The shared network enables manned-unmanned teaming, which allows UAVs and manned aircraft to work together and complete missions more effectively. The network extends the reach of the fleet, while keeping the manned aircraft out of harm's way. It will allow the UAVs to serve as the eyes and ears for pilots, collecting and sending data from the battlespace to a manned fighter. <https://www.businesswire.com/news/home/20201022005829/en/BAE-Systems-Selected-to-Develop-Attritable-Air-Vehicle-Systems-Under-the-U.S.-Air-Force-Skyborg-Program>

Ware Raises Funding to Advance Warehouse Innovation, Drone Technology



[Ware](#), a technology startup deploying autonomous drones for warehouse inventory counting, has closed **\$2.5 million** in seed-round funding, led by UP Partners, with participation from Bloomberg Beta, 2048 Ventures, Tom McInerney—angel investor in companies like Uber—and drone industry expert Adam Bry, CEO of Skydio. The funding will be used for

building out the team to further Ware's **artificial intelligence** capabilities and support customers as they deploy their technology.



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Ware operates at the nexus of robotics and machine learning. Its flagship product enables organizations to perform inventory tracking and warehouse tasks more efficiently with automation. Ware combines drones' ability to quickly access and capture data of an entire facility, then apply algorithmic data processing to deliver accurate reports, ultimately transforming the way warehouses and distribution centers count and manage their inventory. This is especially important as increased consumer e-commerce spending due to COVID-19 has created additional stresses for warehouses. https://www.uavexpertnews.com/2020/10/ware-raises-funding/?utm_source=Master&utm_campaign=0955a415d2-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-0955a415d2-89168288

Delta Drone and Dronisos to offer drone display 'events solutions' for amusement parks EUROPE INNOVATION NEWS SAM LEWIS OCTOBER 20, 2020



Delta Drone is a French company, describing itself as "international player in the field of civilian drones for professional use". Dronisos, founded in 2016, works mostly in Europe from its Bordeaux headquarters, but also has facilities in Florida, and specializes in drone shows and displays.

Delta Drone will manufacture all ATMOS fleets for the exclusive benefit of Dronisos which will be responsible for the promotion, marketing, software upgrades and maintenance in operational conditions of the solutions throughout the world.

Jean-Dominique Lauwereins, president of Dronisos, said: "Leader in drone shows, Dronisos now has the most complete range of automatic drones on the market, ranging from 80 grams to 8 kilograms." <https://www.commercialdroneprofessional.com/delta-drone-and-dronisos-to-offer-drone-display-events-solutions-for-amusement-parks/>

New drone-based safety inspection system for airlines pioneered in Ukraine EUROPE NEWS VIDEO SAM LEWIS OCTOBER 20, 2020

A Ukrainian passenger airline has enlisted the help of two partner companies to aid it in introducing an autonomous drone-based inspection service for its aircraft. Ukrainian MRO company MAUtechnic, Ukraine International Airlines and Luftronix have jointly conducted drone-based scans of UIA's Boeing 737-800 aircraft in Kyiv.



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All scans were conducted using Luftronix's custom-built drones with high-precision navigation systems and scanning equipment, and the Luftronix Orchestrator software for scan planning, flight operations and data analysis.

The scans, Luftronix said, guarantee a consistent surface resolution, and the equipment automatically measures the distance from the surface and curvature of the object to allow for precise on-screen measurements of any item, flagging up any irregularities. This allows inspectors to assess immediately whether the artifacts are within specifications prescribed in the aircraft maintenance and structural repair manuals.

Scans are archived for comparisons over time, enabling monitoring for any artifact that requires repeated attention. See the video at: <https://www.commercialdroneprofessional.com/video-new-drone-based-safety-inspection-system-for-airlines-pioneered-in-ukraine/>

25Oct20

NHS using drones to deliver coronavirus kit between hospitals 18 Oct

2020 07.23 EDT



An [NHS](#) drone is being used to courier Covid-19 samples, blood tests and personal protective equipment between hospitals in England. It is hoped that the trials, backed by a £1.3m grant from the UK Space Agency, can establish a network of air corridors for electric drones to navigate using GPS.

The remote-controlled drone will initially fly between Essex's Broomfield hospital, Basildon hospital and the Pathology First laboratory in Basildon. The project is the idea of Apian, a healthcare drone startup founded by Christopher Law and Hammad Jeilani.

"Covid-19 has highlighted challenges in NHS supply chain logistics," said Law. "We are confident that by setting up a medical drone delivery service, we'll be able to fly samples to labs more regularly, reliably and quickly, helping improve patient health outcomes."

The use of drones will reduce waiting times for couriers, free up NHS staff, reduce unnecessary physical contact and minimize the risk of secondary transmission of the virus.

<https://www.theguardian.com/technology/2020/oct/17/nhs-drones-deliver-coronavirus-kit-between-hospitals->



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[essex?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=9184d597e2-EMAIL_CAMPAIGN_2020_10_25_01_15&utm_medium=email&utm_term=0_2ecada6f57-9184d597e2-33089729](https://www.essex.gov.uk/news/airborne-international-response-team-air-traffic-management-for-emergency-response)

NASA's STEReO: Air Traffic Management for Emergency Response Miriam

McNabb October 22, 2020



As emergency managers readily adopt the use of drones to aid in the response to natural disasters such as wildfires and hurricanes, the skies above those disaster zones are becoming increasingly crowded with aerial vehicles, both manned and unmanned, creating the need for an automated aerial traffic cop.

Enter NASA, whose Ames Research Center in California's Silicon Valley is leading the way, with the development of the Scalable Traffic Management for Emergency Response Operations, or STEReO project. The two-year project aims to develop a system where drones, some flying autonomously, can automatically report important data — such as the UAV's identity, spatial location, mission and flight path – to the disaster management team. It is an outgrowth of NASA's multi-year [Unmanned Aircraft System Traffic](#) Management project to accommodate the increasing number of drones sharing the skies with manned planes and helicopters.

"If we think about a future where there's a lot of UAS vehicles operating in low-altitude airspace, it's going to be difficult to manage through traditional air traffic control resources." Joey Mercer, research psychologist in NASA's [Human Systems Integration Division](#), said in an interview. "We'd like to explore how those type of services can be applied to emergency response." https://dronelife.com/2020/10/22/nasas-stereo-air-traffic-management-for-emergency-response/?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=9184d597e2-EMAIL_CAMPAIGN_2020_10_25_01_15&utm_medium=email&utm_term=0_2ecada6f57-9184d597e2-33089729



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SpaceX adds another 60 satellites to Starlink network October 24, 2020 Stephen Clark



The 60 Starlink satellites blasted off from pad 40 at Cape Canaveral Air Force Station at 11:31:34 a.m. EDT Saturday.

The rocket's first stage shut down its engines and separated two-and-a-half minutes into the mission, beginning a controlled descent to a **pinpoint landing** on a floating platform parked some 400 miles northeast of the launch site. The landing

concluded the **third trip** to space and back for the reusable Falcon 9 booster. All 60 satellites separated from the upper stage at 12:34 p.m. EDT.

The satellites, built by SpaceX in Redmond, Washington, were expected to unfurl power-generating solar arrays and prime their krypton ion thrusters to begin raising their orbits to an operational altitude of 341 miles, where they **will join more than 800** other Starlink relay stations to beam broadband internet signals across most of the populated world. SpaceX plans to operate an initial block of around **1,500** Starlink satellites in orbits 341 miles above Earth.

<https://spaceflightnow.com/2020/10/24/spacex-adds-another-60-satellites-to-starlink-network/>

Iris Automation and City of Reno Partner on River Search and Rescue Program

Miriam McNabb October 23, 2020



[Iris Automation](#), providers of the [Casia onboard Detect and Avoid](#) collision avoidance system, has partnered with the City of Reno under the Federal Aviation Administration's Unmanned Aircraft Systems [Integration Pilot Program \(IPP\)](#). The partnership is to develop the River Search and Rescue Program, designed to equip the city's fire

department with drone technology for life-saving rescues.

Earlier this week Iris conducted a live drone flight demonstration to illustrate how the technology will be used to provide **automated situational awareness** for drones and their pilots.

The River Search and Rescue program will test the safety and capability of using drones during river rescue missions "in an effort to improve response times and reduce exposure of both first responders and victims to dangerous conditions during river rescue operations."

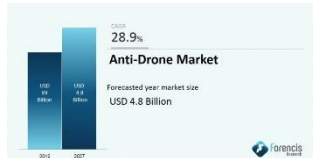


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<https://dronelife.com/2020/10/23/iris-automation-and-city-of-reno-partner-on-river-search-and-rescue-program/>

Global anti-drone market to reach \$4.8 billion by 2027 – Forencis Research

October 21, 2020



The research includes anti-drone systems used to track and identify, as well as detect unmanned aerial vehicles to prevent illegal activities in areas such as airports, stadium and battlefields as well as for military installations. The study includes various combinations of UAV detection equipment and security solutions as well as drone neutralization equipment.

Market drivers include rising adoption of UAVs and advancements in the military sector, while market constraints include high research and development costs. The research says medium and small sized industries may not be able to afford deployment of an anti-drone system.

The report covers analysis of historic, recent and current market trends. Market share/ranking analysis of key players, market dynamics, competition landscape, country-wise analysis for each region covered and the entire supply chain dynamics are covered. Companies include: Thales Group, Lockheed Martin, Saab, Raytheon, Blighter Surveillance, Dedrone, Dronesield, Liteye, SCG Security & Counterintelligence, Northrop Grumman, DeTect, SRC and Theiss UAV Solutions. <https://www.unmannedairspace.info/counter-uas-systems-and-policies/global-anti-drone-market-to-reach-usd4-8-billion-by-2027-forencis-research/>

VISTA Drone by Door Robotics Takes Flight PRESS 2020-10-26 UAV Expert News



Capture every angle from the sky with VISTA Drone, **the first integrated 360-degree camera drone**, from [Door Robotics](https://www.doorrobotics.com/), which launched on Kickstarter today. Eliminating the need to jury-rig expensive cameras to gimbals and drones, VISTA Drone makes it easier than ever before to capture precise, beautiful, and captivating images from above.

No drone on the market today records 360-degree video without also capturing the drone itself in the frame. It creates immersive aerial video without seeing the drone in every frame. In addition to its innovative design, the VISTA Drone also leverages autonomous navigation to learn, map and adapt to any environment indoors or outdoors. Obstacle detection senses objects around the drone and keeps it from crashing during flight, letting the operator focus on



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getting the shot. https://www.uavexpertnews.com/2020/10/vista-drone-by-door-robotics-takes-flight/?utm_source=Master&utm_campaign=6dc0c80659-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-6dc0c80659-89168672

Airbus and IAI selected for maritime border security contract APPLICATION EUROPE NEWS SURVEILLANCE SAM LEWIS OCTOBER 22, 2020



Airbus and its Israel Aerospace Industries have been selected for a **maritime aerial surveillance** with Remotely Piloted Aircraft Systems contract by the European Border and Coast Guard Agency.

The European Border and Coast Guard Agency awarded a contract to Airbus DS Airborne Solutions, a 100% subsidiary of Airbus.

The contract also goes to its long-term partner IAI to operate a medium altitude long endurance RPAS for maritime aerial surveillance services. The service will be delivered in Greece, and/or Italy and/or Malta within a framework contract. The service includes an RPAS platform, payload, communication equipment and capacity, mission storage and all necessary experts managing the system and providing operational support.

Under the contract, Airbus and IAI will provide the service for pre-planned assignments as well as for ad-hoc calls. <https://www.commercialdroneprofessional.com/airbus-and-iai-selected-for-maritime-border-security-contract/>

1000 drones light up the sky in Changchun, China Josh Spires Oct. 26th 2020



Earlier this month, 1000 [drones lit up the sky](#) over the city of Changchun in China, displaying meaningful objects and lighting up the moods of everyone.

Drones took to the sky over the city of [Changchun](#) for two nights to display various objects of significance to the city.



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The drones started out in a random pattern pulsing their lights to simulate a night sky full of stars. The drones then formed into the Clivia flower, which is the city's flower. Next, the drones displayed what looks to be a bird of some sort and finally finished with a message in Chinese, which reads "I love Changchun." Behind the message, you can also see the rest of the drones mimicking fireworks without the noise and smell.

Back in April in Philadelphia, 140 drones took the sky at a hospital to honor health workers and thank them for what they have done. China also took to the sky in April, with a [300 drone display](#) in Zhuhai to thank the medical staff working on the frontlines. A few months later, 300 drones in Korea lit up the sky to share an important message about the pandemic.

Drone light shows have been a hit ever since Intel started performing them at major events to show off their technology. **See the show:** <https://dronedj.com/2020/10/26/1000-drones-light-up-the-sky-in-changchun-china/#more-38877>

27Oct20

New Dronedesk platform simplifies flight planning, recording and management

NEW PRODUCTS SOFTWARE SAM LEWIS OCTOBER 27, 2020



After 14 months of testing, Dronedesk said that users of the beta platform reported **saving an average of 45 minutes** of administration time on every flight undertaken. The application provides fully-integrated and comprehensive flight planning, asset management, team management as well as incident, maintenance and flight logging capabilities. It also incorporates several customer relationship management features, meaning can generate, record and track new business leads, issue quotes for projects or individual jobs, send invoices and record payments.

Dronedesk has unlocked, integrated and democratized access to industry-leading data sources, including UTM, eAIP and NOTAMs, weather and numerous others. Through the platform, these are now available to all drone operators in one application.

Dorian Ellis, founder and director of Dronedesk, commented; "Dronedesk was born out of my frustration with managing spreadsheets, documentation and visiting ten different websites to plan even the simplest of flights. <https://www.commercialdroneprofessional.com/new-dronedesk-platform-simplifies-flight-planning-recording-and-management/>



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Fly-By-Wire System Selected for Pipistrel Autonomous Cargo UAV 22 Oct 2020 Mike Ball



[Pipistrel](#) has selected Honeywell's Compact Fly-By-Wire system for incorporation into the company's Nuuva V300 **autonomous** cargo unmanned aerial vehicle. The lightweight system adds stability and performance by driving flight controls electrically, without heavy hydraulics, control cables or push rods. The compact version from Honeywell has features derived from decades of expertise in fly-by-wire systems for airliners.

The aircraft is a long-range, large-capacity, autonomous VTOL UAV with significantly lower operating costs than helicopters. It can carry loads of up to 660 pounds for more than 180 miles, making it an ideal solution for deliveries to areas traditionally accessible only by helicopter. https://www.unmannedsystemstechnology.com/2020/10/fly-by-wire-system-selected-for-pipistrel-autonomous-cargo-uav/?utm_source=UST+eBrief&utm_campaign=d486df51bc-eBrief_2020_27Oct&utm_medium=email&utm_term=0_6fc3c01e8d-d486df51bc-111778317

Volansi Launches Drone Delivery Program To Deliver Medicines In Rural North Carolina October 20, 2020 News



Volansi is piloting the delivery of cold chain medicines from Merck's Wilson, N.C. manufacturing site to Vidant Healthplex-Wilson. With 1.4 million people across 29 counties, eastern North Carolina's vast, rural environment can create challenges for accessing care. Initial flights in the project resulted in **the first drone delivery of temperature-controlled medicines within the U.S.**

The project utilizes Volansi's VOLY C10, an all-electric drone capable of carrying 10-pounds of cargo to locations up to 50 miles away. Its vertical take-off and landing system allows it to deliver fragile cargo with a "soft touch" automated release once the drone has landed at the delivery location. The VTOL system also requires minimal infrastructure to operate and is also capable of delivering on the returning flight items to support order confirmation like temperature trackers and shipping confirmation.

https://uasweekly.com/2020/10/20/volansi-launches-commercial-drone-delivery-program-to-deliver-cold-chain-medicines-in-rural-north-carolina/?utm_source=rss&utm_medium=rss&utm_campaign=volansi-launches-commercial-drone-delivery-program-to-deliver-cold-chain-medicines-in-rural-north-carolina&utm_term=2020-10-23



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Quaternium completes record-breaking 10-hour plus flight Josh Spires Oct. 27th 2020



Quaternium has managed to achieve a **10-hour 14-minute** flight with its [hybrid drone](#) after partnering with drone fuel injector company Löweheiser. The flight was made possible with an experimental version of the HYBRiX 2.1 drone.

The record-breaking drone flight started at 8:20 am and ended 10 hours and 14 minutes later at 6:34 pm. The drone was loaded with 16 liters of fuel and fully charged batteries.

The brain behind the experimental drone is the Löweheiser LH01ECU electronic fuel injection system, which has been designed to work with drones. The electronic fuel injection system is one of the smallest and most efficient options on the market today, with a total weight of just 40 grams. It also adjusts for altitude to make sure the engine is getting the correct ratio of air to fuel and can be programmed to work with 2-stroke, 4-stroke, 1-cylinder, 2-cylinders, Wankel, propeller-powered engines or hybrid systems.

The electronic fuel injection system allowed the engine to be properly monitored during the test to allow the team to adjust anything on the fly, keeping the drone in the air longer.

<https://dronedj.com/2020/10/27/quaternium-record-breaking-10-hour-flight/>

A gorgeous video... of a poisonous place Scott Simmie Oct. 27th 2020



The location is rural Romania, at a village called Geamana. Up until 1978, this was a pretty idyllic place. Nestled in a valley surrounded by hills, it was a quiet agrarian community. The local church was a gathering point. Many lived their entire lives in the village and were buried in its local cemetery. But the discovery of a massive copper deposit nearby would change everything. When the decision was made to begin extracting the copper on a large scale, it was clear that somewhere would be needed to dump a key by-product of mining: a highly toxic sludge. And the best place for that? Well, that was the village of Geamana.

The central government, at the time run by a supervillain called Nicolae Ceaucescu, ordered the villagers to move. A promise was made to relocate the dead from the cemetery, and to generously compensate the villagers. Neither of those things happened. While the villagers did receive some compensation, it was a fraction of what they'd been promised. And the dead?



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Their graves, untouched, were submerged. <https://dronedj.com/2020/10/27/toxic-romanian-lake-seen-by-drone/#more-39110>

BLUE BEAR SYSTEMS' 20-DRONE SWARM CONDUCTS BVLOS OPERATIONS AUVSI NEWS OCT 21, 2020



The latest heterogeneous swarm was made up of five different types and sizes of fixed wing Blue Bear drones, including Vertical Take Off and Landing fixed wing Ghost/Modular Ghost UAS, conventional fixed wing Red Kite UAS, conventional fixed wing Cobra UAS and smaller hand launched Flat Pack UAS.

Six types of payload from five different companies were integrated into the swarm through Blue Bear plug and play open architectures and SmartConnect™ technology. Plextek DTS, IQHQ, Airbus, RFEL, Durham University and Blue Bear all provided payloads and payload support.

The drones flew simultaneous Beyond Visual Line of Sight cooperative tasks. **Three operators** commanded the swarm of 20, while simultaneously handling different, collaborative payload analysis tasks.

Blue Bear's Artificial Intelligence platform was running on a number of the UAS Swarm, and processing sensor data on the aircraft before sending only relevant data back to the ground, which helped further reduce the burden on the operator. Blue Bear Airspace Deconfliction Layer (ADL) technology was running in the background.

Throughout the two weeks of trials, Blue Bear regularly operated swarms of 10 to 14 collaborative UAS. The company flew more than 220 UAS sorties, building up to be able to operate a **20 UAS swarm**. The trials concluded with a multi-vehicle 'button click' to launch simultaneous take off and mission deployment of four Ghost UAS in **30knt winds**. <https://www.auvsi.org/industry-news/blue-bear-systems-20-drone-swarm-conducts-bvlos-operations>

Inertial Labs Kernel-100 Measures Linear Accelerations and Angular Rates October 27, 2020

Paeonian Spring, VA: The Kernel-100 is a compact, self-contained system that measures linear acceleration and angular rates with three-axis MEMS accelerometers and gyroscopes. Aligned



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to an orthogonal coordinate system, it contains up to 2 deg/hr bias in-run stability gyroscopes and 10 μ g bias in-run stability accelerometers with low noise and high repeatability.



With its compact design and low power consumption, it is easy to integrate in a wide range of systems while consuming very little space and power.

With continuous Built-in Test, configurable communications protocols, electromagnetic interference protection and flexible input power requirements, it is built to be used in a wide variety of applications including air, marine and land environments. It can be integrated into Motion Reference Units, Attitude and Heading Reference Systems and GPS-Aided Inertial Navigation Systems. As a result, it is ideal for a wide variety of applications such as autonomous vehicles, antennas and line-of-sight stabilization systems. <https://resources.inertiallabs.com/news/product-release-kernel-100-mems-inertial-measurement-unit-and-digital-tilt-sensor>

28Oct20

FLIR's New MUVE C360 Can Help Public Safety Officials Find Methane Gas – Fast.

Miriam McNab: October 27, 2020



Methane gas leaks are extremely serious: the gas is not only toxic at some concentrations, it's also extremely flammable and can cause explosions. [FLIR's MUVE C360](#), a drone-integrated multi-gas detector, is a **game-changing technology** that could save lives in gas leak incidents.



The MUVE C360 is a small multi-gas detector with a probe attached to a commercial drone also equipped with a visual camera for situational awareness. Firefighters can determine gas leaks at an incident from a safe distance: and then engage, armed with the right equipment and a more accurate understanding of the situation. At the same time, the visual camera provides 360 degree situational awareness. It is also possible to determine the source of a significant leak if the drone is equipped with DJI's Zenmuse XT2 camera powered by FLIR thermal imaging.

Rather than risking personnel, FLIR's multi-gas detector "allows the drone to be first in and last out" of an incident, explained FLIR's Chris Bainter at a demonstration of the MUVE C360 by the



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Los Angeles Fire Department last year. <https://dronelife.com/2020/10/27/methane-gas-is-odorless-colorless-and-deadly-flirs-new-muve-c360-can-help-public-safety-officials-find-it-fast/>

USAF chief of staff sees Agility Prime aircraft fulfilling logistics missions Pat Host 23 OCTOBER 2020

The US Air Force's top officer views the service's Agility Prime electric vertical takeoff and landing effort as a way to develop an unmanned logistics capability.

General Charles Brown, USAF chief of staff, said on 21 October the service has been able to use unmanned platforms to perform missions including strike and intelligence, surveillance, and reconnaissance, but not logistics.



Sabrewing Aircraft's Rhaegal-B heavy-lift, long-range, unmanned cargo aircraft.

The USAF chief of staff views Agility Prime as an opportunity to acquire an unmanned logistics platform. Gen Brown said that he is often asked why the USAF needs a 'flying car'. "It is less about the flying car, it is the capability that it might provide in the future to be able to do logistics for us, to move things back and forth," Gen Brown said during a Mitchell Institute for Aerospace Studies event. <https://www.janes.com/defence-news/news-detail/usaf-chief-of-staff-sees-agility-prime-aircraft-fulfilling-logistics-missions>

Ohio's CAL Analytics tests detect and avoid capabilities of drones Josh Spires Oct. 28th 2020



[Ohio-based](#) CAL Analytics recently tested its regional detect and avoid system for drones flying in unmanned traffic management [\(UTM\) environments](#). The two-day tests demonstrated the system's ability to prevent collisions between drones and other aircraft in the sky. The [detect and avoid system](#) is powered by the FAA's ACAS sXu software that allows drones to "see" other aircraft in the sky and actively avoid them using **external** guidance technology and sensors. A great benefit of the CAL Analytics service is the lack of onboard systems and sensors needed.

The system also integrates with UAS service suppliers to receive real-time data from the drone and send it to the detect and avoid system. This allows the system to **automatically command**



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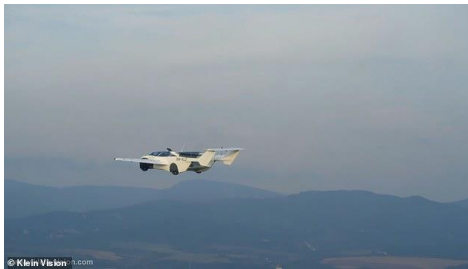
the drone where it should go to avoid a collision. CAL Analytics has been working with AiRXOS to help with the development of the automation system.

The FAA's ACAS sXu software aims to protect all aircraft in the air, no matter what platform it uses or the type of aircraft. The software solution has also been chosen as it's much more effective than having to equip all aircraft with hardware and allow the system to scale quickly.

<https://dronedj.com/2020/10/28/ohios-cal-analytics-tests-detect-and-avoid-capabilities-of-drones/>

29Oct20

Futuristic flying 'AirCar' takes to the skies for the first time RYAN MORRISON FOR MAILONLINE 28 October 2020



AirCar has wings that unfurl and a single propeller at the rear. The wings fold up when the vehicle is on the road and it takes up the space of a normal parking spot

A flying sports car that can go from road vehicle to aircraft in just three minutes has flown 1,500ft in the air over Slovakia as part of a test flight, its developers say.



No price details have been revealed for the futuristic vehicle, but it can travel for about 620 miles at a time and could be seen in the air and on the roads next year. The two-seat model, tested in Slovakia this week, weighs 2,425lb and can carry an additional load of 440lb per flight. Powered by a BMW 1.6l engine, the car-plane has an effective power output of 140HP and travel range of 621 miles. It requires a runway of at least 984ft and can reach speeds of up to 124 miles per hours. It has wings that unfurl and a single propeller at the rear. The wings fold up when the vehicle is on the road, and it takes up the space of a normal parking spot. It requires a runway of at least 984ft to get from ground to sky and can reach speeds of up to 124 miles per hour.

When all the legally required flight tests are completed, they plan to fit the craft with a more powerful engine and hope to have it ready for sale within six months.

<https://www.dailymail.co.uk/sciencetech/article-8888847/Futuristic-flying-AirCar-takes-skies-time.html?ito=1490>



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New Experimental Zones Will Support UAM and the Drone Industry in China

Miriam McNabb October 28, 2020



The Civil Aviation Administration of China has announced the first Unmanned Civil Aviation Experimental Zones to help accelerate the drone industry. The list of UCAEZs covers 13 cities.

China is home to the **majority** of the world's small drone manufacturers, including global leader [DJI](#) and pioneering urban air mobility company Ehang. China has allowed applications such as contactless delivery and drone disinfection with small UAS. One of the most well-known players in the drone industry, Ehang has been able to test and implement a wide variety of passenger drone applications: [aerial tourism](#), aerial [firefighting](#), search and rescue.

The new experimental zones are designed not only to offer the airspace for testing innovative drone applications, but also to ease the process of developing drone businesses. <https://dronelife.com/2020/10/28/new-experimental-zones-will-support-uam-and-the-drone-industry-in-china/>

'Made in America' Drones: Influencing Perception and Reality in the UAV

Market OCTOBER 26, 2020 Jeremiah Karpowicz



This distinction was at the heart of the DOI's announcement that it would "[take a pause](#)" with their drone fleet. The importance of that distinction was further highlighted and defined when the US Department of Defense Innovation Unit [announced that five drone companies](#) had been tested, approved, and would be formally available for government use. Tellingly, none of those five companies are headquartered in China. Just as tellingly, DJI [was never in the running](#) to be in the program.

All of this underscores how and why "made in America" is a term that is about much more than marketing and perception, as there are legal and bottom-line ramifications to it. However, there are also nuances that matter for anyone operating a commercial drone program or considering what it would mean to create one. Those details could very well define the future of how the technology is adopted in numerous industries. See the nuances at:

<https://www.commercialuavnews.com/security/-made-in-america-drones-influencing-perception-and->



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[reality-in-the-uav-](#)

[market?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTTJJMlpXWm1NV1ZpTmxFNSIsInQiOiI0ZnNpZTVXTVIRVIV4SENLIdDcGd3bGJuTkJTd3JOZkZEVFBqY2pCVFhJVVJwaWh1WDBINWI5Vk9XY1FiZnFmQnVXREM1b3ZmZkdMS1ViYmY4NGRWY3dTT3lxMWItUzc1d2RiTDVnenhuc1dRYXRncVQyMHAyb0VKejJOQUdQbiJ9](#)

US Chamber of Commerce says China drone ban not beneficial Scott Simmie Oct. 29th 2020



U.S. CHAMBER OF COMMERCE

A recent report from the US Chamber of Commerce contains a section that appears to criticize the Department of Interior's banning of Chinese-made drones, or drones containing Chinese-made parts. It's very much worth noting, as this has become a huge issue in the drone world lately.

The very condensed story is this: Some people have expressed concern over the data security of Chinese-made drones. The Department of Interior has banned the purchase of these products for its internal use. And more recently, a group called the Defense Intelligence Unit has come up with a list of five drones that it considers meet security requirements, as well as "Made-in-the-USA" status. This is seen by many as an "approved" list of drones. DJI, long the preferred vendor for non-military drones, is not on that list.

The question arises: Is this about security? Or it is about boosting American-made products? DJI believes it's about trade, pure and simple. And as for allegations of issues with security? DJI has pushed back against those suggestions for some time. In fact, it recently posted a special blog designed to address and refute all allegations. [We wrote about that here](#), and encourage you to read both our story and to explore the DJI blog post. <https://dronedji.com/2020/10/29/us-chamber-of-commerce-says-china-drone-ban-not-beneficial/>

Drone shoots darts into trees to collect data in dangerous areas Josh Spires Oct. 29th 2020



[Researchers in the UK](#) have developed an innovative solution to get a wireless network of sensors into dangerous areas using drones that shoot darts into trees and other soft materials.

[Current methods](#) of getting sensors into an area with a drone are comprised of dropping them onto the ground and hoping for the best or trying to



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stick the sensor in a certain place with a robotic arm. The sensor-packed darts can stick into soft objects like a tree from up to four meters away and have an accuracy of around 10 centimeters. The drone is equipped with a spring-loaded mechanism that shoots the darts.

The dart uses a spine to dig into the tree, but the researchers say they can use other, more permanent methods, including chemical bonding, magnets or adhesive. Researchers plan on making the system autonomous along with shooting the dart. The next step is to use object detection hardware and software to track the target and shoot along with depth sensors to avoid obstacles and other trees. <https://dronedj.com/2020/10/29/drone-shoots-darts-into-trees-to-collect-data-in-dangerous-areas/>

Doosan Mobility Innovation's Hydrogen Tank Receives Approval October 28, 2020 News



With approval from the Department of Transportation, DMI is now able to establish a nationwide hydrogen distribution network for their hydrogen fuel cell powered drones in the United States. They have partnered with ReadyH2, a company out of Plano, Texas that specializes in compressed hydrogen gas distribution networks.

DMI has partnered with ILJIN Composites Co., Ltd to manufacture the cylinders for their hydrogen powered drone. ILJIN provides Hyundai Motors with hydrogen cylinders created with the same technology as DMI's hydrogen cylinder. All cylinders have passed numerous safety tests including pressurized tests, fire tests and even gunshot penetrations tests.

DMI's drone, powered by hydrogen fuel cells, is transforming the way the industry thinks about drone solutions. With a long endurance **flight time of over two hours** and eco-friendly system, their solution has endless applications including inspection, search and rescue, mining and construction, agriculture, logistics, aid delivery and numerous others.

https://uasweekly.com/2020/10/28/doosan-mobility-innovations-hydrogen-tank-receives-department-of-transportation-approval/?utm_source=rss&utm_medium=rss&utm_campaign=doosan-mobility-innovations-hydrogen-tank-receives-department-of-transportation-approval&utm_term=2020-10-29



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North Dakota Has Invested Millions in Building Drone Infrastructure. Vantis is the Payoff. Miriam McNabb October 29, 2020



The North Dakota drone industry just got a big advantage with Vantis, **the nation's first** statewide UAS beyond-visual-line-of-sight network. "With Vantis' unique statewide ecosystem supporting UAS, North Dakota is primed to become the nation's epicenter of commercial UAS activity," says a press release.

"North Dakota has a rich aviation history, and Vantis is a catalyst for the next wave of UAS innovators and entrepreneurs. We're grateful for the Legislature's significant investment in this statewide network, which creates a blueprint for private-public partnership within technology," says Governor Doug Burgum. "North Dakota is the nation's proving ground for UAS, and Vantis represents a bold step into the future of UAS operations in the United States and beyond. Progress in the UAS industry will benefit all North Dakotans, including those who work in energy and agriculture, as we lay the foundation for innovative technologies and diversify our economy."

Last year, North Dakota invested **\$28 million** for the creation of a statewide network to facilitate drone flight beyond visual line of sight. The state has invested heavily in attracting the drone industry: with oil and gas, military installations, FAA test sight facilities, agriculture, and a lot of wide open spaces, [North Dakota has a lot to offer](https://dronelife.com/2020/10/29/vantis-north-dakota-drone-industry-advantage/). <https://dronelife.com/2020/10/29/vantis-north-dakota-drone-industry-advantage/>

FAA's Unmanned Aircraft System Remote ID Service Could be Ready This Year

Kelsey Reichmann October 29, 2020



The Federal Aviation Administration might be able to initiate remote identification service for unmanned aircraft systems in December, Steve Dickson, FAA administrator, said Wednesday during the virtual [UAS Summit](#) & Expo.

Under the remote ID system described in the agency's proposed [remote ID rule](#), released in late 2019, commercial drone operators will be required to transmit via broadcast and network their location, their drone's location, velocity and identifying data to a centralized system, which a variety of remote ID unmanned aircraft system service providers share and retrieve information from in near-real-time.



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Dickson said the rule is currently under review from the Office of Management and Budget, which is the **last stage** before it can be released.

“We are working with the OMB staff to answer any questions and make sure that we continue to move forward,” Dickerson said. “I would say that some have talked about whether it can get out in December or not, that's not unreasonable, but obviously these things aren't completely predictable. We'll see where we end up but that's certainly our hope is that it's going to be out in the very near future.” <https://www.aviationtoday.com/2020/10/29/faas-unmanned-aircraft-system-remote-id-service-ready-year/>