



UAS and SmallSat Weekly News

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20Oct21

Autonomous eVTOL Drone Delivery Technology to Launch in UK 30 Sep 2021 Mike Ball



[Gadfin](#) has confirmed that its new electric Vertical Take-Off and Landing UAV will be showcased at the DroneX conference in London. The Spirit One, along with its ground maintenance station and enhanced flight management system, enables a fully autonomous drone delivery network that Gadfin hopes will revolutionize logistics supply chains and connect peripheral areas to urban centers.

The Spirit One has a MTOW of 25kg and a flight range of more than 250 km (155 miles). This range is further multiplied through automated ground maintenance stations that can perform an autonomous ground cycle and relaunch the drone, making it an ideal solution for cost-effective supply of healthcare services and devices to a multitude of regions. The aircraft also features a speed of 100 km/h (93 mph), a clean hydrogen electric energy supply, unique aerodynamics, and patented folding wings.

Gadfin's autonomous long-range service is a fully autonomous B2B aerial delivery system that can create a physical internet between warehouses, hospitals and clinics around the world with a 24/7 AI-managed grid, to supply on-demand delivery in a rapid and cost-effective manner. The **novel folding wing** technology allows the UAV to adapt its flight mode to specific circumstances, allowing optimal vertical take-off and landing as well as traditional fixed-wing flight. <https://www.unmannedsystemstechnology.com/2021/09/autonomous-evtol-drone-delivery-technology-to-launch-in-uk/>

Matternet Announces Commercial Deployment of the Matternet Station October 1, 2021 News



[Matternet](#) today announced its first deployment of the Matternet Station at EOC hospital group in Lugano, Switzerland. The Station brings to completion a logistics system which, together with the Matternet M2 drone and Cloud Platform, will enable automated drone delivery. This enhancement will allow Matternet to accelerate the roll-out of city-wide networks, the first of which will be in [Abu Dhabi, UAE, as announced earlier this month.](#)



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Matternet's drones have been flying beyond-visual-line-of-sight over Swiss cities for more than four years with Swiss Post. Following a trial period, the Station will replace human operators at the Italiano facility of EOC in Lugano, a customer Swiss Post and Matternet have served jointly since 2017.

Urban drone operations promise to significantly advance on-demand and last-mile logistics by making transport of physical goods within cities faster, cheaper, and more sustainable. The Station adds:

- Automated loading and temperature-controlled storage of payloads
- Self-serve package retrieval via badged authentication
- Robust tracking and chain-of-custody reporting

https://uasweekly.com/2021/10/01/matternet-announces-commercial-deployment-of-the-matternet-station/?utm_source=rss&utm_medium=rss&utm_campaign=matternet-announces-commercial-deployment-of-the-matternet-station&utm_term=2021-10-02

FAA Awards \$2.8 Million in Drone Research Grants to Five Universities September 29, 2021 FAA & Drone Laws



Research will focus on three areas: Advanced material, right-of-way rules, and flight data recorder requirements.

The universities receiving grants are Mississippi State University, Wichita State University, Embry-Riddle Aeronautical University, the University of Kansas, and the University of North

Dakota. The grant awardees are summarized as follows:

Conduct Advanced Materials Investigation – Composite Material Analysis for Unmanned Aircraft System (UAS)

- Mississippi State University: \$157,000
- Wichita State University: \$161,958

Propose Right-of-Way Rules for UAS Operations and Safety Recommendations

- Embry-Riddle Aeronautical University: \$330,000
- University of Kansas: \$494,525
- University of North Dakota: \$569,242

Identify Flight Recorder Requirements for UAS Integration into the NAS

- Embry-Riddle Aeronautical University: \$298,145



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- Wichita State University: \$400,000
- University of North Dakota: \$390,945

Today's announcement is the third round of [Alliance for System Safety of UAS through Research Excellence](#) (ASSURE) grants, which brings the total of 57 grants valued at **\$19.1 million** for Fiscal Year 2021. https://uasweekly.com/2021/09/29/faa-awards-2-8-million-in-drone-research-grants-to-five-universities/?utm_source=rss&utm_medium=rss&utm_campaign=faa-awards-2-8-million-in-drone-research-grants-to-five-universities&utm_term=2021-09-30

Easy Aerial Achieves AS9100 Certification for Aerospace and Defense September 29, 2021 News



The designation is the result of passing stringent audit requirements and evaluations of its manufacturing processes to achieve a standard of quality required in the aerospace and defense industry.

AS9100 is an internationally recognized quality management system standard specific to the aerospace, aviation, and defense industries. This standard is widely supported and adhered to within the industry and is increasingly required by customers and vendors within the supply chain.

Easy Aerial is also ISO 9001 certified, a globally recognized standard for quality management systems and practices. This certification ensures that the company's products and services consistently meet customer's requirements and that quality is continuously improved.

In addition to being AS9100 and ISO 9001 certified, all Easy Aerial systems are NDAA Sec. 848 compliant and built with qualified traceable components. The company's unmanned aerial vehicles and supporting systems are designed, built, and tested at its **Brooklyn, N.Y.** headquarters. https://uasweekly.com/2021/09/29/easy-aerial-achieves-as9100-certification-for-aerospace-and-defense/?utm_source=rss&utm_medium=rss&utm_campaign=easy-aerial-achieves-as9100-certification-for-aerospace-and-defense&utm_term=2021-09-30

Cubesats to study Earth's magnetosphere and exoplanets launch with Landsat 9

Elizabeth Howell

Two cubesats designed to study the Earth's magnetic field and to look for exoplanets around nearby stars rode to space on Monday (Sept. 27) with NASA's new Landsat 9 Earth observation mission.



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The two little satellites called CuPID (for Cusp Plasma Imaging Detector) and CUTE (for Colorado Ultraviolet Transit Experiment), carpooled with the 3-ton [Landsat 9](#) to space, taking advantage of excess room available atop an Atlas V rocket provided by United Launch Alliance. This arrangement makes it relatively cheap for the [cubesats](#) to access space, since Landsat 9 was already booked on the rocket and there was enough fuel to spare for extra passengers.

CuPID is the **first spacecraft ever** fitted with a wide field-of-view soft X-ray camera designed to detect lower-energy X-rays. These X-rays are generated during a phenomenon known as [magnetic reconnection](#), which occurs when two magnetic fields, such as that of [Earth](#) and [the sun](#), encounter each other.

This happens regularly when the solar wind (charged particles that flow from [the Earth's sun](#)) collides with the [Earth's magnetosphere](#) (the planet's protective magnetic field). The interaction sometimes triggers [colorful aurora](#) displays as molecules high up in the atmosphere get "excited" when they mix with the solar wind. <https://www.space.com/landsat9-launch-cubesats-exoplanets-and-magnetosphere>

Korean Air secures contract for further stealth UAV work Pearl October 1, 2021 Travel Ideas



Korean Air has secured a government contract to develop a low-observable unmanned air vehicle to advance South Korea's stealth technology. The contract award came from the Korea Research Institute for Defense Technology Planning and Advancement. The project involves producing a UAV that aids the development of radar absorbing materials and a low observable shape that can be applied to future UAVs.

The company says it was able to reduce the UAV's radar cross section through the use of what it refers to as "multi-functional composites."

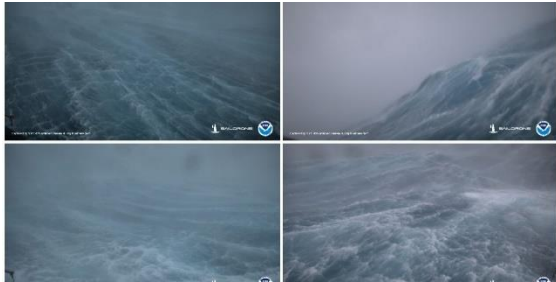
In addition to its airline operations, Korean Air has extensive involvement in the aerostructures and the MRO business through its KAL-ASD aerospace division.

<https://africapearl.com/2021/10/01/korean-air-secures-contract-for-further-stealth-uav-work-news.html>



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Ocean drone captures wild video footage from inside Hurricane Sam Ishveena Singh - Oct. 1st 2021



On September 30, US-based small business Saildrone, the makers of autonomous surface vehicles by the same name, sent an ocean drone into the eye of Hurricane Sam.

Collecting information that is critical to understanding what drives the rapid

intensification of a tropical storm is important for the National Oceanic and Atmospheric Administration. Since [it only takes one storm to devastate a community](#), an improvement in storm forecasting could allow for better preparedness in coastal communities, reducing the loss of human life.

Saildrone’s ocean drones provide data directly to NOAA’s Pacific Marine Environmental Laboratory and Atlantic Oceanographic and Meteorological Laboratory – the company’s partners in this mission. Greg Foltz, a NOAA scientist, explains:

Rapid intensification, when hurricane winds strengthen in a matter of hours, is a serious threat to coastal communities. New data from Saildrones and other uncrewed systems that NOAA is using will help predict the forces that drive hurricanes and warn communities earlier.

This week, the Saildrone Explorer SD 1045 battled 50-foot waves and winds of over 120 mph to collect scientific data. And in the process, it provided **a completely new view** of one of Earth’s most destructive forces. <https://dronedj.com/2021/10/01/world-first-drone-video-inside-hurricane-saildrone/#more-68459>

Pilots of new North Wales Police drone unit already hailed as ‘high-flying heroes’ Bruce Crumley - Oct. 1st 2021



Though only launched in April, the North Wales Police drone unit has already intervened to resolve three search and rescue cases that authorities believe might have otherwise resulted in loss of life. The team was also credited with flying critical support missions that helped firefighters contain a massive mountain blaze in June.

After being briefed on those and other aerial missions by the squad, North Wales Police and



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Crime Commissioner Andy Dunbobbin hailed its members as “high-flying heroes,” and pledged to expand their numbers and range of activity.

North Wales Police drone flew over 350 missions in its first three months of operation. In June its UAVs played a critical role directing firefighting helicopters to hotspots of the giant Llantysilio mountain blaze, resulting in its faster containment. They were then scrambled to find two elderly men who’d gotten lost for prolonged periods, and who [“didn’t stand a chance”](#) if searching drones hadn’t found them. A third life was saved after a man fell down a slope into a quarry and was left stranded on an obscured ledge. All three men were found and geo-positioned so officers on the ground could race to and lead them to safety.

<https://dronedj.com/2021/10/01/pilots-of-new-north-wales-police-drone-unit-already-hailed-as-high-flying-heroes/#more-68472>

Drones for Radiation Detection: Azur Drones Partners with AVNIR Energy Miriam McNabb September 29, 2021 DRONELIFE Staff Writer Ian M. Crosby



[Azur Drones](#), a world leader in [autonomous surveillance](#) and [inspection drones](#), is collaborating with [AVNIR Energy](#), a specialist in engineering in the nuclear energy sector, to develop the **first ever autonomous aerial solution for detecting radioactivity**. The solution is designed for the environmental

monitoring of nuclear sites, as well as ensuring the safety of these sites, both in France and abroad.

The collaboration sees the integration of a radioactivity sensor into [Azur Drones’ Skeyetech drone-in-a-box solution](#). Skeyetech, a resident autonomous drone capable of carrying out its missions without a remote pilot, is the [first drone system to be approved](#) in Europe for Beyond Visual Line Of Sight flights. Skeyetech now embarks AVNIR Energy’s Ionized Zone Inspection Device, resulting in the first autonomous vector able to perform detection missions on operational nuclear sites. <https://dronelife.com/2021/09/29/drones-for-radiation-detection-azur-drones-partners-with-avnir-energy/>



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30Oct21

Volatus Aerospace Partners with Iris Automation HEADLINE NEWS

TECHNOLOGY GEORGINA FORD OCTOBER 3, 2021

[Volatus Aerospace](#) and commercial drone safety innovator, [Iris Automation](#), have entered a partnership to offer Beyond Visual Line of Sight drone solutions to global clients seeking to safely unlock the skies above cities and solve logistics challenges in remote and rural areas.



Volatus is a leading player in BVLOS flight training and waived operations. Clients are provided with enhanced training that includes BVLOS regulations, detection and tracking methods, sensors, communication, and geographical and topographical impacts to the mission. Following the theory portion of training, Volatus provides “in-field” activity where clients work with experienced BVLOS pilots and perform practical exercises, including flight principles, functionality, and controllability in a BVLOS environment. Volatus has aircraft equipped with Iris Automation’s detect-and-avoid (DAA) system.



IRIS AUTOMATION™

The Iris Automation Casia system uses a proprietary perception engine to visually detect other aircraft and make intelligent decisions about the threat they may pose to the drone. It then works to trigger automated maneuvers to avoid collisions and alert the pilot in command of the mission. Casia is **the only solution** for commercial drones and unpowered aircraft delivering a full 360° radial detection capability using computer vision technology. <https://www.commercialdroneprofessional.com/volatus-aerospace-partners-with-iris-automation/>

Delta Drone International signs agri-tech deal with Corteva Press 27 September 2021



Drones-as-a-service provider [Delta Drone International](#) (ASX:DLT) has secured a contract with major producer of seeds for agriculture, Corteva Agriscience RSA (Pty) Ltd in South Africa, adding to the Company’s growing multinational customer base. Corteva Agriscience is a global agricultural chemical and seed company with net sales in 2020 of US\$14.2 billion.

The eight-month, fixed-term contract, worth A\$150,000 was signed after Delta Drone International successfully provided its drones-as-a-service capabilities across several ad-hoc agriculture projects for the conglomerate over the last two years.



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Delta Drone International will provide a full-time specialist agriculture drone pilot to deploy state-of-the-art agriculture-specific drones to capture a range of vital data including plant analytics to ensure maximum yield for crops such as maize, soybeans and sunflowers for Pioneer Seed RSA, a subsidiary of Corteva. <https://www.suasnews.com/2021/09/delta-drone-international-dltd-signs-agri-tech-deal-with-corteva/>

Honda prepping AI robots, inter-city electric air travel and lunar technology for

2030 Jonathan Greig | September 30, 2021

Honda announced a range of efforts for the coming decade, including travel to the Moon and AI-powered robots.

Honda [unveiled](#) its priorities for the next decade on Thursday, highlighting the company's efforts to reduce its environmental impact, expand its work in [robotics](#) and avionics and facilitate travel to the Moon.

Honda's 2030 Vision includes plans for a Honda Avatar Robot, a Honda eVTOL aircraft, reusable rockets and other technology designed for space.



The Honda eVTOL is being designed to use Honda's electrification technologies for its gas turbine hybrid power unit to facilitate electric inter-city transportation.

"In addition to clean operation realized by electrification technologies, eVTOL features safety at a level equivalent to that of commercial passenger airplanes realized by its simple structure and decentralized propulsive system and quietness due to relatively small diameter of rotors," the company explained in a statement.

"This makes it possible for eVTOL to take off and land in the middle of a city without causing noise issues. Because of such features, the development race for eVTOL aircraft is getting increasingly vigorous. However, all-electric eVTOL aircraft face a range issue due to limited battery capacity. Therefore, the realistic use area is limited to intra-city transportation."

<https://www.zdnet.com/article/honda-prepping-ai-robots-inter-city-electric-air-travel-and-lunar-technology-for-2030/>



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Volansi Completes First-Ever Maritime Drone Delivery Demonstration APPLICATION DRONES AT WORK GEORGINA FORD OCTOBER 4, 2021



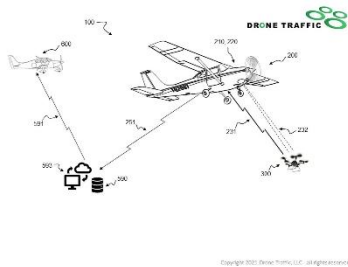
Volansi, a Silicon Valley drone delivery company, announced it has demonstrated “unprecedented drone delivery autonomy” between naval and US Coast Guard ships, according to Volansi CEO Will Roper.

Volansi has been quietly developing ruggedized delivery services that can operate in challenging environments, including the military. On July 18, Volansi put this into practice with their VOLY 10 and 20 Series aboard a naval ship and the United States Coast Guard Cutter WILLIAM TRUMP.

The VOLY 10 Series is an electric vertical takeoff and landing drone capable of carrying 10 pounds over 50 miles currently operating in the US with companies such as Merck and in Western Africa. The July demonstration was the VOLY 10 Series’ **first application** as a military logistics and surveillance solution.

The VOLY 20 Series is a much larger hybrid VTOL drone with 20 pounds of payload capacity and over 350 miles of range. The July 18 demonstration successfully graduated it to the next phase of its military contract. <https://www.commercialdroneprofessional.com/volansi-completes-first-ever-maritime-drone-delivery-demonstration/>

Drone Detection App in Works Russ Niles October 4, 2021



A Denver pilot says he’s successfully tested an app that can detect drones that might conflict with aircraft. [Drone Traffic](#) CEO Rick Zelenka said the test was conducted at Platte Valley Airport in Hudson, Colorado, and was the result of a NASA-funded contract to develop a drone detection system for aircraft. “It spots a drone and identifies it,” [he told The Denver Channel](#). “Then that information is shared on the ground and with other pilots in the

sky.” The system is designed to spot drones that are flying where they aren’t supposed to, including close to airports.

Zelenka is a former NASA engineer who has worked on a variety of airborne detection projects and is also a patent attorney, so the details of how the system works are not included on his



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website. But now that the technology has been validated, he told Denver media that he intends to release a commercial version that can be downloaded onto a tablet.

https://www.avweb.com/aviation-news/drone-detection-app-in-works/?MailingID=723&utm_source=ActiveCampaign&utm_medium=email&utm_content=Drone+Detection+App%2C+Virgin+Ungrounded&utm_campaign=Drone+Detection+App%2C+Virgin+Ungrounded-Monday%2C+October+4%2C+2021

Drone Banner Ads Take Marketing to a Higher Level Miriam McNabbon: October 01, 2021 By: Dawn Zoldi



Founded by Jamar Williams, a Part 107 Certified Remote Pilot in Command and self-acclaimed creator and communicator, PromoDrone was born from his belief that aerial drone technology would captivate everyday people by grabbing their attention.

“The fundamental mission at PromoDrone is to create a more connected and memorable experience through stimulating, engaging, and interacting with audience viewers,” Williams explained. “We also get to experience joy from the smiles and excitement in the eyes of people who get to witness the banner drone in action!”

Those experiences start with the company’s lightweight highly durable custom 3D printed PD-Hex Frames. The frames hang QR code-enabled mesh systems that display two full color banner panels from DJI Matrice 600 drones. This allows for 2-way viewing up to 100 feet away.

Promo Drone’s clients include advertising and marketing agencies, event organizers and planners, outdoor venues and stadium spaces, hospitality, and VIP event experience curators and more recently, independent drone operators and drone solutions companies for licensing and resale. <https://dronelife.com/2021/10/01/drone-banner-ads-take-marketing-to-a-higher-level/>

ABU DHABI LAUNCHES MEDICAL DRONE DELIVERY WITH MATERNET AND SKYGO September 30, 2021 Sally French News



Between its flashy buildings and Formula 1 races, Abu Dhabi may be known for its high-tech, high-rolling lifestyle. But the wealthy capital of the United Arab Emirates is getting a form of tech for good: medical drone delivery.



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The Abu Dhabi [Department of Health](#) announced in 2021 plans to adopt advanced drones to distribute and transfer medical supplies within the healthcare sector. As part of the project, the government will partner with two private companies, SkyGo and Matternet, to build a drone delivery system helmed by 40 stations. Together, they'll transport medical goods such as COVID-19 vaccines, blood, and lab samples medical supplies, medicine and blood units, vaccines and samples between laboratories, pharmacies, and blood banks around the city of Abu Dhabi.

SkyGo is the first company to have a license in the UAE for Beyond Visual Line Of Sight commercial drone delivery operations, bringing its in-depth knowledge of the Abu Dhabi healthcare landscape and expertise in logistics and distribution in the Gulf region to the project.

Meanwhile, **California-based** Matternet has long been a pioneer in drone delivery, including having conducted Beyond Visual Line Of Sight commercially over cities since 2017. Earlier this summer, Matternet became the **first** drone company in the U.S. to start transporting the Pfizer-BioNTech COVID-19 vaccine by drone. SkyGo already has a license for BVLOS drone delivery in the UAE, which Matternet will use. <https://www.thedronegirl.com/2021/10/04/abu-dhabi-matternet/>

Insurers Increase Investments in Drones, Robots John McCormick Oct. 1, 2021



Boston Dynamics' Spot comes equipped with several small cameras and a vision perception system that help it navigate and avoid obstacles.

Travelers Cos., United Services Automobile Association and Farmers Insurance Group were among the major property and casualty companies to deploy aerial drones this summer to inspect property damage in the wake of Hurricane Ida.

International Data Corp. expects the insurance industry to spend about \$602 million world-wide on robotics systems, including drones, in 2021, with spending growing to \$1.7 billion in 2025.

Drones and robots make insurance more effective, more efficient and safer. Drones, for example, can quickly inspect a damaged roof and transmit images back to a claims system without sending an adjuster into a building that might be compromised.

Travelers, which **has a fleet of more than 700 drones**, last month deployed some 200 to inspect customers' properties in the wake of Hurricane Ida, which made landfall in Louisiana and then



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traveled north through the U.S. The company said it plans to increase the use of drones for claims inspection. <https://www.wsj.com/articles/insurers-increase-investments-in-drones-robots-11633121824>

Forgotten Utah town submerged underwater reappears amid drought Sam

Hancock September 23, 2021



The town of Rockport, in [Utah](#), vanished entirely in 1957 – five years after the [White House](#) green-lit the construction of the Wanship Dam, which created Rockport Reservoir.

No more than 200 residents ever lived in the area before it was abandoned entirely, despite it being settled in as early as 1860. Just 27 families are thought to have lived in the little town, located in a narrow part of Weber Valley at the

mouth of Three Mile Canyon, at the time the US government went ahead with plans to drown them out.

However, drought conditions, which caused the water to recede to 26 per cent capacity in recent weeks, revealed the foundations of Rockport **for the first time in 64 years**.

Drone test pilot Devon Dewey, who travelled to the site, recently shared **striking drone images** of the roads and house remnants that could be seen.

“It was really interesting to be standing at an overlook for the reservoir and to see faint traces of foundations of old homes and a road all below where the water would normally be,” he told KSL News. Mr Dewey added the remnants of the former town are clearer from an aerial point of view. “The whole area is pretty flat and uniform, so even though the foundations are old and mostly gone, you can still see them clearly if you know where to look,” he said.

https://news.yahoo.com/forgotten-utah-town-submerged-underwater-213505911.html?guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAD3SvScjLLis ti57tcEZXL-XiJlKfTSYwVdvGasCeqIs8o7lpwILDQfiE3Fv6YTSoh95HLiJCKfn2O440EJgAIT4uuXhguO981qJzWdstpxo4g0Sc6tJ2PydbUUUqM 2lwXtXT6MjSpckPS75vSo0kOSwGMDhgbkJOeB0Fyk0q&gucounter=2



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Fortem DroneHunter Successfully Defeats Drone Threats in US Army Test Press 24 September 2021



Fortem Technologies, leaders in airspace security and defense for detecting and defeating dangerous drones, announced today that their DroneHunter[®] successfully defeated threat drones during a recent US Army test in Yuma Proving Ground, AZ. DroneHunter is an AI-enabled, radar-guided drone that locks onto its target, fires a net, captures the threatening drone and tows it to a safe deposit location. Kinetic and non-lethal, the DroneHunter results in no/low collateral damage.

DroneHunter performed **completely autonomously** from queuing through launch, intercept, and capture of the threat drones, depositing them in a designated safe drop zone and landing. During the test, DroneHunter engaged fixed-wing and rotary-wing targets of various speeds, size, altitude, and flight characteristics at operationally significant ranges with a high Probability of Kill (Pk). Fortem has partnered closely with the Army's Integrated Fires/Rapid Capabilities Office for the past two years as part of their system of systems approach to counter-UAS. <https://www.suasnews.com/2021/09/fortem-dronehunter-successfully-defeats-drone-threats-in-us-army-test/>

Vanilla Smashes World Record: 8 days, 12,000 miles, Comms Package October 4, 2021 News



Vanilla Unmanned demonstrated 8 days, 50 minutes, and 47 seconds of continuous flight, breaking the world record for **unrefueled, internal combustion endurance** of an unmanned aircraft.

Vanilla launched from Rogers Dry Lakebed on Friday, September 24th and was recovered on Saturday, October 2nd having flown 12,200 miles over Edwards Air Force Base with a communications relay system & ample ballast to accommodate other sensors. The flight was conducted in coordination with Edwards Air Force Base and has been **submitted for ratification as an official world record**.

The world-record flight was the last in a series of events at Edwards Air Force Base demonstrating Vanilla's unique multi-day, multi-sensor capability. Several sorties over 50 hours



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each carried two EO/IR cameras, two satellite communications systems for BVLOS operations, and a customer-proprietary radar in addition to the mesh radio system.

Unlike larger long endurance UAS, Vanilla is a tactical-scale Group III system that uses an internal-combustion engine for propulsion. Its smaller size enables runway independent launch from forward locations with minimal manning. Unlike solar-powered high-altitude systems, Vanilla is immediately responsive to operator tasking and flies at tactical altitudes, thereby accommodating smaller and lower cost sensors for the same C5ISR value. Vanilla runs on standard Jet-A fuel, easing logistics concerns during forward operations.

Vanilla's airframe can carry up to 150 lbs of sensor payloads across five internal bays and external mounts, each receiving onboard power and datalink for sensor

C2. https://uasweekly.com/2021/10/04/vanilla-smashes-world-record-8-days-12000-miles-comms-package/?utm_source=rss&utm_medium=rss&utm_campaign=vanilla-smashes-world-record-8-days-12000-miles-comms-package&utm_term=2021-10-04

5Oct21

Cargo Delivery by Drone: Malaysia's Raya Airways Demonstrates Commercial Viability Miriam McNabb October 04, 2021

[Raya Airways](#) of Malaysia is testing the commercial viability of [cargo delivery](#) by drone in Kuala Lumpur, using cargo drones from [Pen Aviation](#).



Raya Airways is performing a Proof of Commercialization (POC) project with Pen Aviation to demonstrate the commercial viability of cargo delivery by drone in the region. Raya hopes to be **the first Malaysian freight service provider in ASEAN to operate cargo drones.**

The POC will use the PEN55V, Pen Aviation's medium size cargo drone. Raya plans to add a "[Drone-As-a-Service](#)" to its range of offerings, operating a mixed fleet of PEN55V and PEN1360V heavy lift cargo drones.

Drone delivery services like [medical drone delivery](#) and just in time [industrial delivery](#) have already proven successful in the commercial market. This Malaysian POC will "specifically explore the deployment of drones to **facilitate port logistics.**" [Drone delivery has significant value to offer ports](#), where processes have been further snarled by the current COVID-19



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pandemic. <https://dronelife.com/2021/10/04/cargo-delivery-by-drone-malaysias-roya-airways-demonstrates-commercial-viability/>

Iris Automation Partners with BVLOS Drone Solutions Provider 29 Sep 2021 Mike Ball



[Iris Automation](#) has formed a partnership with Volatus Aerospace to provide Beyond Visual Line of Sight (BVLOS) drone solutions that will provide safe operations in urban environments as well as solve logistics challenges in remote and rural areas. These solutions will be based upon Volatus UAVs equipped with Iris Automation's Casia detect-and-avoid system.

Casia uses a proprietary perception engine to visually detect other aircraft and make intelligent decisions about the threat they may pose to the drone. It then works to trigger **automated** maneuvers to avoid collisions, as well as alerting the pilot in command of the mission. According to Iris Automation, Casia is **the only solution** for commercial drones that delivers a **full 360° radial detection capability** using computer vision technology.

Volatus is a provider of BVLOS flight training and waived operations. Clients are provided with enhanced training that includes BVLOS regulations, detection and tracking methods, sensors, and communication, as well as geographical and topographical impacts to missions. Risk analysis and mitigation strategies are key to the training offered. Following the theory portion of training, Volatus provides "in-field" activity where clients work with experienced BVLOS pilots and perform practical exercises, including flight principles, functionality, and controllability in a BVLOS environment.

https://www.unmannedsystemstechnology.com/2021/09/iris-automation-partners-with-bvlos-drone-solutions-provider/?utm_source=UST+eBrief&utm_campaign=b8ae2d8c28-ust-ebrief_2021-oct-5_engaged&utm_medium=email&utm_term=0_6fc3c01e8d-b8ae2d8c28-111778317&mc_cid=b8ae2d8c28&mc_eid=acabe18a61

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Airspace Monitoring During Monday Night Football in Arlington, TX Miriam McNabb October 05, 2021 by DRONELIFE Staff Writer Ian M. Crosby

Today, Syracuse-based [Hidden Level](#) announced that they have brought their Airspace Monitoring Service (AMS) to Arlington, Texas, as part of the city's Smart City initiative. Hidden



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Level's AMS provides law enforcement and security personnel with an added layer of situational awareness by monitoring the location of drones in the city's low-altitude airspace.



The pilot project's launch on September 27 was timed to coincide with the Monday Night Football game between the Dallas Cowboys and the Philadelphia Eagles. In addition to AT&T Stadium, Arlington's Entertainment District is home to several large public venues, including Globe Life Park, Six Flags Over Texas, the National Medal of Honor Museum, and the Esports Stadium Arlington & Expo Center.

Drone sightings around active public venues are a continuing concern for law enforcement agencies throughout the country. Through the airspace monitoring system pilot project, when a drone is reported near a public venue or in restricted airspace, law enforcement can compare Hidden Level's real-time data against registered flight plans for both commercial and civilian drones, enabling them to corroborate information and better assess the intent of why drones might be in the area. Along with the real-time data, law enforcement will have an improved capability to gather and analyze data over time, allowing them to assess various trends in the airspace during public events. <https://dronelife.com/2021/10/05/airspace-monitoring-during-monday-night-football-hidden-level-launches-asm-in-arlington-tx/>

Aussie researchers use drones, facial recognition to count and monitor koalas

Bruce Crumley - Oct. 5th 2021 DRONE RESEARCH



The government of South Australia, wildlife specialists at Flinders University, and the conservation charity Koala Life have worked up a plan to fly drones to film koalas in their habitat and run that footage through facial recognition applications to identify individual bears. The process seeks to create a full repertoire of each member of the state's koala population and monitor how their total numbers evolve over time. The ability to distinguish the marsupials from one another will also permit researchers to better understand their movements, behavior, and psychology – and determine whether the presence of nominally noninvasive drone watching creates significant stress.

Drones shooting footage for facial recognition purposes will be flown initially amid captive koalas at Cleland Wildlife Park in Adelaide Hills, about 14 miles south of central Adelaide. Those will be instrumental to gathering imagery to test the effectiveness of computer identification of



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individual bears and collecting visual behavioral information – including signs of stress. If the approach is deemed efficient and non-disruptive to the creatures, live flights will begin in natural settings on South Australia’s Kangaroo Island, and in the Adelaide Mount Lofty Ranges. <https://dronedj.com/2021/10/05/aussie-researchers-use-drones-facial-recognition-to-count-and-monitor-koalas/>

Discover the Top Use Cases for Drones in Energy OCT 5, 2021

Today’s energy and utilities organizations are using drones to capture data that was previously too dangerous, difficult, or expensive to obtain. While the full potential of drone technology is still being realized, it’s clear that drones are a must-have for energy companies looking to reduce costs, increase safety, and revolutionize their workflows.



Transmission Power Spot Checks - Traditionally, a transmission tower inspection would take dozens of hazardous worker hours to complete. With a drone, you can quickly access the tower, gather real-time imagery, and come up with a diagnosis within minutes.

Storm Restoration - Drones reduce the time it takes to investigate damage from storm-related power outages. Terrain conditions may be unknown, and drones can help assess damaged power generators.

Site & Vegetation Surveying - Multispectral sensors can show you which vegetation is actively growing and needs to be cleared and which vegetation is dormant and isn’t going to encroach on your sites.

Tracking Wind Turbine Degradation - While you can inspect your wind turbines with ground-based inspections, drones reduce work hours of turbines by over 75%, and those ground-based inspections miss 15-20% of damages drones find.

Commissioning and Asset Transfers - Drones offer a quick way to capture data samples that stakeholders can use to measure the sustainability of entire wind and solar farms.

Corridor Mapping - Drones provide a safe way to get a detailed view of terrain in the shortest amount of time.

Volumetrics - Drones use images captured from dense grid pattern aerial photography to produce a point cloud and a digital surface model to estimate volume. This process is faster than traditional methods and requires fewer resources. https://www.measure.com/blog/discover-the-top-use-cases-for-drones-in-energy?_hsmi=167666780&_hsenc=p2ANqtz-



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Drought makes 130-year-old North Dakota shipwreck visible for drone photography

Ishveena Singh - Oct. 6th 2021



Drought conditions and low water levels on the Missouri River have revealed a nearly 130-year-old shipwreck some 25 miles north of Bismarck, and you should be able to capture stunning aerial footage of the same.

The Abner O'Neal was a steamboat that was built in 1884 for transporting freight and passengers. According to the State Historical Society of North Dakota, the Abner O'Neal was transporting 9,000 bushels of wheat on July 17, 1892, when it struck a submerged rock and began to sink. The crew attempted to patch the hole, but the damage was too extensive, and the steamboat quickly went down in 8-to-10 feet of water.

The wreck of the Abner O'Neal was salvaged after the sinking, with the superstructure and paddle wheel removed. But much of the hull of the wreck has remained intact since. Extreme drought conditions and a reduction in releases out of Garrison Dam have lowered the water levels on the Missouri River by as much as two feet, making the shipwreck even more visible. <https://dronedj.com/2021/10/06/shipwreck-north-dakota-drone-photography/#more-68798>

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Skydweller Aero Demonstrates Closed-Loop Aircraft Control and Waypoint Navigation

October 6, 2021



OKLAHOMA CITY, Oct. 6, 2021 /PRNewswire/ -- Skydweller Aero Inc., a U.S.-Spanish aerospace company developing solar powered aircraft for defense and commercial industries, today announced successful flight demonstrations of the company's initial aircraft autonomy and guidance, navigation, and control during a series of flight tests. Skydweller engineers demonstrated autonomous aircraft control and waypoint navigation, a critical milestone on its path to developing **the most sophisticated, commercially viable autonomy** for solar-powered aircraft.



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This accomplishment verifies both the preliminary capabilities of the company's autonomous systems technology and its advanced weather and climate data analysis, leading to the completion of **10 flights**. During this round of testing, engineers evaluated all autopilot commands to verify inner-loop flying qualities at various altitudes and completed all autonomous waypoint navigation test points. New communication links and various automatic takeoff and landing sensors were installed and evaluated. The company's meteorologists and flight test operations verified the company's weather and climate forecasting models, enabling the creation of optimized flight paths. https://finance.yahoo.com/news/skydweller-aero-inc-successfully-demonstrates-130000525.html?fr=sycsrp_catchall

DroneSeed Attracts Heavyweight Investors to Its Funding Round SEPTEMBER 30, 2021 BUSINESS NEWS INSIDE UNMANNED SYSTEMS



On Sept. 29, Seattle-based DroneSeed announced **it has raised \$36 million** in its Series A funding round, PR Newswire and DroneSeed reported. Part of the funds have been used to acquire Silvaseed, a 130-year-old forestry company that grows millions of trees a year. The acquisition also will expand DroneSeed's seed collection and seedling cultivation services.

Social Capital and Seven Seven Six are leading the round. New investors include Marc Benioff's TIME Ventures, DBL Partners, and Tobi Lütke, CEO of Shopify. Marc Tarpinning, the co-founder of Tesla, is continuing his role as a board observer. More than 60 percent of the capital invested in the round is coming from investors with a climate and impact fund focus.

"DroneSeed is **the only company approved by the FAA** to deploy a fleet of heavy-lift drones to reforest after wildfires," the release reported. It offers vertically integrated reforestation services at a time when six million acres have burned in wildfires across the country.

"DroneSeed can drop seed vessels within 30 days after a fire, compared to traditional methods which can take years of waiting to replant. After it reforests burned land, DroneSeed **sells the resulting carbon credits** to organizations looking to go carbon neutral or negative."

<https://insideunmannedsystems.com/droneseed-attracts-heavyweight-investors-to-its-funding-round/>



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Brazilian Private Jet Operator Signs LOI for 100 Eve eVTOL Aircraft Staff Writer October 7, 2021



Aviation Management Services – Serviços Aeronáuticos Ltda. (Avantto), the largest operator of Embraer executive jets in Latin America, has signed a letter of intention (LOI) under a partnership with Eve Urban Air Mobility, LLC to order 100 electric vertical takeoff and landing (eVTOL) aircraft.

The LOI is part of a broader partnership between Avantto and Embraer's Urban Air Mobility (UAM) subsidiary Eve to develop a UAM ecosystem in Latin America.

Eve describes the eVTOL that it is developing as featuring an all-electric low-noise design that is continuing to meet their program milestones including "the first flight of the engineering simulator in July 2020 and a proof of concept in October 2020." The company has not released many details about the design of the eVTOL it is developing other than real and computer-generated images of the aircraft showing an eight-rotor design and noting that it will feature a fifth-generation fly-by-wire system. https://www.aviationtoday.com/2021/10/07/brazilian-private-jet-operator-signs-loi-100-eve-evtol-aircraft/?oly_enc_id=7021F0632090D7B

With NASA partnership, Orlando begins planning for air taxis, flying cars RYAN GILLESPIE ORLANDO SENTINEL OCT 07, 2021



A rendering of a Lillium jet in flight.

Orlando is preparing for when flying cars are an option for those who want to soar over congested highways or between nearby cities. And they [may arrive far sooner](#) than 2062, as The Jetsons predicted.

The city has signed onto a partnership with NASA to **develop strategies for welcoming electric oversized drones**, which take off vertically from landing pads called vertiports. The city's first vertiport, to be built by the German company Lillium, is planned for the Lake Nona area.



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“We’ve heard from different operators that their hope is to be in operation with passengers sometime in the 2024-2025 time frame,” said Jacques Coulon, an Orlando transportation planning projects coordinator.

Nancy Mendonca, a NASA official working with Orlando and other governments in the partnership, said the agency has heard from the FAA that **companies are already applying for certifications** for potential air taxis.

Local governments play a key role in charting the path for so-called “advanced air mobility” because city codes determine things like zoning rules for vertiports, economic development surrounding the stations and other important rules and infrastructure. Last year, Lillium reached a deal with the City of Orlando and Tavistock Group, Lake Nona’s developer, to build its vertiport, which could be **the first in the United States**. The city agreed to pitch in about \$1 million over 10 years in the form of property tax rebates if the company complies with job creation and wage requirements. It’s estimated to cost about \$25 million for the port with two landing pads and the ability to charge eight vehicles.

<https://www.orlandosentinel.com/news/orange-county/os-ne-orange-orlando-flying-cars-20211007-nxtumsnphjeejc42gxdgemgxoki-story.html>