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GA-ASI Demonstrates BLOS Command & Control Over HF Using MQ-9 January 8, 2021 Military | News



General Atomics Aeronautical Systems, Inc. (GA-ASI) completed the first Beyond Line of Sight (BLOS) High Frequency Command and Control demonstration for an Unmanned Aircraft System. The HF C2 capability does not require a Satellite Communications link and is capable of providing BLOS connectivity up to 8,000 miles,

depending on transmit power and link geometry.

For the demo, GA-ASI integrated the U.S. Government's Collaborative Operations in Denied Environment (CODE) autonomy software into the Open Operational Flight Profile of an MQ-9A Block 5 Remotely Piloted Aircraft and flew the MQ-9 using improved diagonal tails with conformal HF antennas incorporated into the leading edges.

The demonstration was flown from Laguna Army Air Field/Yuma Proving Grounds on Dec. 16, 2020. The MQ-9 was commanded from Austin, Texas approximately 1,000 miles away over an HF C2 link. This capability enables an operator to task the MQ-9 without needing SATCOM, providing a means to operate in SATCOM-denied, contested environments. https://uasweekly.com/2021/01/08/ga-asi-demonstrates-blos-command-control-over-hf-using-mq-

9/?utm_source=rss&utm_medium=rss&utm_campaign=ga-asi-demonstrates-blos-command-control-over-hf-using-mq-over-hf-using-mq-9&utm_term=2021-01-08

Pea Ridge, Arkansas, gives drone deliveries the go-ahead Josh Spires Jan. 8, 2021



The city of Pea Ridge, Arkansas, has unanimously approved Walmart to begin delivery of health and wellness products using Zipline's delivery drones. The two partnered last year but have been waiting for the go-ahead for the last few months.

The trial drone delivery program will see small health and wellness goods weighing 3.9 pounds or lighter being delivered around Pea Ridge, within the drone's range. It is expected to reach the delivery location after about 30 minutes, making it a great way to receive urgent goods.

The drones have a range of 50 miles, which means they will be able to reach the majority of northwest Arkansas. The program is said to create 10 local jobs.



The drones will fly at an altitude of 300 to 400 feet and fly into a net rather than landing. The drone will release the package with a parachute at the drop-off location to slowly make its way to the ground. https://dronedj.com/2021/01/08/pea-ridge-arkansas-gives-drone-deliveries-the-go-ahead/#more-45918

Iran tests kamikaze drones as a show of power toward the US Josh Spires Jan. 8, 2021



<u>During a recent drill, Iran</u> tested out its latest addition to the battlefield - A set of kamikaze or suicide drones as a show of power toward the US. The tension between the two countries has risen recently due to the anniversary of the death of one of Iran's top generals caused by a US drone

strike.

The kamikaze drones have a range of 2,485 miles. Iran also had hundreds of other drones on display, including a quadcopter that dropped cluster bombs. Photos from the Iranian government also show the standard military drones that carry missiles and bombs under the wings. The two-day-long drills saw many Iran officials attend and many drones in the air to show off what they are capable of.

This type of drone-focused drill is the first of its kind we have seen from Iran so far and truly shows the work it is putting into its armed drones. While drills played a practical role for the soldiers involved, it also doubled as a "gun show" of sorts to intimate the US and its other enemies. https://dronedj.com/2021/01/08/iran-tests-kamikaze-drones-as-a-show-of-power-toward-the-us/#more-45944

New Year's light paintings using Lumecube and Mavic 2 Ty Poland Jan. 8, 2021



Drone photography can always be fun to look at because of the unique perspective it offers. But what if the drone could be used as a paintbrush to make light paintings instead of capturing the image?

For the past two years, Martin Sanchez (<u>@zekedrone</u>) has been creating a New Year's series using his <u>Mavic 2</u>
<u>Pro"</u> and <u>Lumecubes</u>. By setting up a camera on a tripod to

capture a long exposure shot, he attaches lights to his drone to draw patterns in the sky.



After painting unique lines, shapes, and even numbers, Sanchez then composites the image in Photoshop. In the end, we are left with a surreal image illuminated by lights shining on a drone.

I think it is really cool to witness this type of creativity. Being there to help with the shoot, it is fun to watch how Sanchez puts all the pieces together. This year, instead of creating a single image, Sanchez wanted to produce more of a "light show." By animating different lines in the composite, this image had a whole new feel over last year's.

https://dronedj.com/2021/01/08/new-years-light-paintings-using-lumecube-and-mavic-2/

California police arrest suspect with the help of a drone Josh Spires Jan. 8, 2021



Police in Chula Vista, California, have been able to use a drone to help arrest a 17-year-old suspect believed to have been involved in a shooting earlier this week. The teenager allegedly shot a man trying to get the license plate number of a car he was in after it was involved in a hit-and-run.

The <u>shooting happened around 4 p.m.</u> Tuesday when several 911 callers reported that a man had been shot. Once on the scene, the victim told police he had witnessed a hit-and-run and followed the car believed to have caused it.

While following the vehicle, he was shot by a passenger in the car. Officers sent up a drone to search for the man. The drone was able to spot the car and captured the man exiting the car with a gun. The suspect then walked away from the car and left the area.

Officers arrested the teen and found a loaded handgun in his pocket. He was booked into a juvenile center on suspicion of felony assault charges. The victim was transported to a hospital and is expected to make a full recovery. The person hit by the car didn't have any injuries, and the driver was given a citation for the incident. https://dronedj.com/2021/01/08/california-police-arrest-suspect-with-the-help-of-a-drone/

Elsight receives \$8.3 million in the latest round of funding Josh Spires Jan. 8t,2021



Australian-listed drone startup Elsight has managed to secure \$8.3 million in funding during its latest investment round. The money is expected to grow the company's sales and marketing activities and further develop its Halo connectivity platform.



<u>Elsight has its headquarters in Israel</u> while being listed on the <u>Australian stock exchange</u>. The company's latest product, Halo, is an always-connected platform that allows its clients to keep track of their drones and other assets 24/7. The system can be easily integrated into any drone and uses a specially developed bonding technology never to lose connection.

To keep all the data safe, the system splits it up into smaller packets, encrypts each packet and then uses a VPN to scrabble the addresses. The data is then sent using various technologies (LTE, WIFI, RF, satellite) to make it even harder for it to be stolen. It is then decrypted and combined on the receiving end.

The Halo system is currently used by some of the largest drone companies, including Airobotics, Copter Pix Pro, and Gadfin. The Israeli police and IAI ELTA also use the system. Thanks to the small and lightweight package that doesn't produce a lot of heat, it can be placed almost anywhere without any issues. https://dronedj.com/2021/01/08/elsight-receives-8-3-million-in-the-latest-round-of-funding/#more-45913

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Global drone super-highways within grasp, says UTM tech provider HEADLINE NEWS JOE PESKETT JANUARY 10, 2021



Altitude Angel, a leading Unified Traffic Management technology provider, has raised a further \$5.3m from one of Europe's largest VC investors, Octopus Ventures.

The latest fundraising concludes Altitude Angel's series A round, led by Octopus Ventures and existing investor Seraphim Capital. It also brings the total invested in Altitude Angel in 2020 to \$9.4m.

Through the widespread adoption of UTM platforms, governments and authorities will be able to begin building networks of interlinking drone corridors which will revolutionize the transportation of goods; from medical supplies and fast-food deliveries to parcel drop off and collections.

The investment will allow Altitude Angel to capitalize on its reputation as the world's leader in developing and deploying local and national UTM platforms, allowing it to further expand its international presence and in doing so, accelerate the safe and secure use of drones in skies across the globe. https://www.commercialdroneprofessional.com/global-drone-super-highways-within-grasp-says-utm-tech-provider/



Delta Drone International relists on ASX following South Africa merger HEADLINE NEWS JOE PESKETT on JANUARY 7, 2021



Delta Drone International Limited, Australia's first listed drones-as-a-service company, re-commences trading on the ASX today following the successful merger between world-leading drone safety company ParaZero and international drone services provider Delta Drone South Africa.

The re-listing follows a strongly supported capital raise of \$5 million at \$0.04 a share, resulting in a market capitalization of \$20 million. The capital raise has enabled new domestic and international investors to join the register, along with existing ParaZero shareholders.

The combined entity achieved pro forma combined revenue in CY19 of A\$5.8m and a historical revenue year-on-year growth rate of 40%. Delta Drone International will provide drone services to the mining, agricultural and engineering industries through a range of contract and project services including aerial surveying and mapping, security and surveillance and blast monitoring and fragment analysis as well as safety system and compliance management.

The business is built to meet the demand for fast and accurate survey data, as well as to support all the regulatory, insurance and maintenance requirements needed to run these services safely and consistently. Funds from the capital raise will be used to expand into the Australian market, initially targeting drone services for the local mining and agricultural related industries. https://www.commercialdroneprofessional.com/delta-drone-international-relists-following-south-africa-merger/

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Patent for Remote ID Systems Goes to Oregon-Based Drone R&D Company Miriam McNabb January 08, 2021.



A patent for Remote ID systems has been granted to Kenji Sugahara: Drone Advisory Committee member, CEO/President of the <u>Drone Service Providers Alliance</u>, and CEO of Oregonbased Ariascend drone research and development company.

By DRONELIFE Staff Writer Jim Magill



With the Federal Aviation Administration's recent release of the <u>final rule on Remote</u> <u>Identification of Unmanned Aircraft</u>, the race is on to become an industry leader in the development of remote identification technology. One of the first movers in this race is <u>Ariascend</u>, an Oregon-based drone research and development company, which this week announced that its CEO, Kenji Sugahara, had recently been awarded a patent for broadcast remote identification of drones.

<u>U.S. Patent 10,825,345</u> issued in November, calls for drones to have a "digital license plate," that can broadcast information about the drone to observers on the ground, including law enforcement agencies and members of the general public.

Sugahara's system includes "an electronic beacon system mounted to an unmanned aerial system broadcasting identification and sensor data including a UAS identification code, global positioning system data and other telemetry information," according to the patent.

"There are authorized and unauthorized handheld mobile devices," he said. "The authorized folks (such as law enforcement agencies) would be able to look up the personally identifiable information through a database, while unauthorized people, like the general public, will just be able to get the location on the digital license plate of the drone."

https://dronelife.com/2021/01/08/patent-for-remote-id-systems-goes-to-oregon-based-drone-rd-company/

NASA selects four small astrophysics missions for study Jeff Foust January 9, 2021



WASHINGTON — NASA announced Jan. 7 it selected three smallsat missions and one high-altitude balloon mission as the first in its new Astrophysics Pioneers program. The program, established last year, <u>is intended to support small astrophysics</u> missions, including smallsats and balloons as well as International

Space Station payloads. The agency selected the four from 24 proposals it received in the fall.

One selected smallsat, Aspera, will study galaxy evolution by observing hot gas between galaxies at ultraviolet wavelengths. A second, Pandora, will observe 20 stars known to have exoplanets at visible and infrared wavelengths. A third smallsat, StarBurst, will detect gamma rays from neutron star mergers, working in conjunction with gravitational wave observatories on the ground. The Payload for Ultrahigh Energy Observations is a balloon-borne instrument that will measure ultrahigh energy neutrinos from neutron star mergers and the creation of



black holes. Each mission has a cost cap of \$20 million. https://spacenews.com/nasa-selects-four-small-astrophysics-missions-for-study/

THE COUNTRIES WHOSE GOVERNMENTS ARE MOST PREPARED FOR

DRONES January 11, 2021 Sally French The Drone Girl News



Some countries are actually pretty close to making widespread drone use a reality. The three governments best prepared for drone operations are Singapore, the UAE and Poland.

In the <u>Drone Regulations Report 2020</u> from German drone analytics firm Drone Industry Insights, DII looked at the countries that had made the most improvements in operational scope of drone regulations, as well as those that allow better integration of drones into their respective airspaces.



Singapore's landmark financial business district, anchored by the Fountain of Wealth at Suntec city

<u>Singapore's government</u> has been especially onboard with promoting drone use since coronavirus. In April, the Home Team Science & Technology Agency of Singapore, which is a statutory board formed under Singapore's Ministry of Home

Affairs, began using drones to augment Singapore Police Force's efforts in policing people not appropriately social distancing.

And the UAE has been an even earlier promoter of drones, having <u>defined rules for flying</u> <u>drones in the UAE</u> early on (they discussed them extensively in a 2016 conference in UAE. Dubai especially jumped on using drones, thanks largely to the "<u>Dubai Smart Government Plan</u>" which used drones for initiatives such a policing and monitoring infrastructure. https://www.thedronegirl.com/2021/01/11/governments-countries-drones/

SpaceX Obtains FCC OK for Polar Orbit Launch of 10 Starlink Smallsats Matthew Nelson January 11, 2021 News

<u>SpaceX</u> has received approval from the Federal Communications Commission to launch 10 <u>Starlink</u> satellites into <u>polar orbit</u> using a Falcon 9 rocket as part of the Transporter-1 small satellite rideshare mission, SpaceNews reported Saturday.



The authorization covers the deployment of the satellites into a 348-mile orbit with an

inclination of 97.6 degrees in an effort to provide coverage to remote areas in ${\color{blue}\mathsf{Alaska}}.$

The company submitted a request Nov. 17 to launch 58 satellites into polar orbit as FCC mulled over the modification of SpaceX's license to decrease the orbits of satellites approved for higher altitudes.

FCC, in an order and authorization notice released Friday, said the partial grant will enable the company to continuously develop and test broadband service in high latitude geographic areas. https://blog.executivebiz.com/2021/01/spacex-obtains-fcc-ok-for-polar-orbit-launch-of-10-starlink-

smallsats/?utm_campaign=ExecutiveBiz%20Daily%20Headlines%2001.11.2021%20%28WJXuFU%29&utm_medium=email&utm_source=Ebiz%20Welcome%20Email&_ke=eyJrbF9jb21wYW55X2lkIjogllRCS0t4UClsICJrbF9lbWFpbCl6ICJyb2JlcnQucmVhQGF4Y2VsLnVzln0%3D

DARPA Announces Subterranean Challenge Final Event Site and Date January 10, 2021 News



After three years of development, DARPA Subterranean (SubT) Challenge teams will get the chance to compete in the Final Event being held at the Louisville Mega Cavern in Louisville, Kentucky on September 21-23, 2021.

The Challenge aims to develop innovative technologies that can rapidly map, navigate, and search complex underground environments such as human-made tunnel systems, urban undergrounds, and natural cave networks. Teams compete by demonstrating how their autonomy, networking, perception, and mobility capabilities perform on either physical courses in the Systems Competition or simulated environments in the Virtual Competition. The best performing team in the Systems Competition will be awarded a \$2 million prize while the best performing team in the Virtual Competition will be awarded a \$750,000 prize.

Over the last two years, teams faced a series of preliminary circuit events – the Tunnel Circuit, Urban Circuit, and Cave Circuit – to demonstrate how their solutions address the unique challenges of each subdomain. Teams will now tackle competition courses that include challenge elements from all three subdomains at the same time.



https://uasweekly.com/2021/01/10/darpa-announces-subterranean-subt-challenge-final-event-site-and-date/?utm_source=rss&utm_medium=rss&utm_campaign=darpa-announces-subterranean-subt-challenge-final-event-site-and-date&utm_term=2021-01-11

HEISHA Launches User-friendly Drone-in-the-box Solution January 10, 2021 News



HEISHA, the leading provider of autonomous drone charging stations in the world, as launched DNEST—its newest and smallest charging station—together with a global call for exclusive partners.

With a size of 1 cubic meter, and weighing less than 40 kilograms, DNEST makes it easy to deploy in the garden or on a roof. DNEST is a user-friendly product aimed squarely at the consumer market. It is a ready-to-fly product with a charging station, DJI Mavic 2 Zoom and software ready for action. Without any piloting skills, users can easily operate DNEST to keep an eye on their properties from the air at any time and from any place.

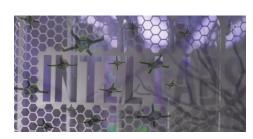
Ling Lu, CEO of HEISHA said, "With the release of this new product we are also putting the call out for exclusive partners globally. HEISHA is not simply seeking dealers, but partners with whom we can together create an excellent product."

Developed with sole goal of making an easy-to-use drone charging solution, DNEST is equipped with a sixth-generation drone charging pad and third-generation controller technology.

Together with CLOUD CENTURY Freesky remote control center and Amazon cloud services, it allows users to have a bird's eye view whenever they need.

https://uasweekly.com/2021/01/10/heisha-launches-user-friendly-drone-in-the-box-solution/?utm_source=rss&utm_medium=rss&utm_campaign=heisha-launches-user-friendly-drone-in-the-box-solution&utm_term=2021-01-11

Intel envisions drones with 'biological' brains and eyes David MacQuarrie Jan. 11, 2021



Intel hopes its new, cutting-edge 21st technology will make drones at least as smart as bugs, maybe even birds. Intel envisions biological drones.

The company is installing its new Loihi chips into drones, hoping to give them capabilities approaching animals.



Intel hopes its neuromorphic Loihi chip will make drones behave more like animals. The chip more resembles a biological brain than an electronic computer. According to the EEJournal, it has 2 billion transistors, simulating 130,000 neurons and 130 million synapses.

Intel is starting by applying the neuromorphic technology to drone cameras. A conventional camera takes multiple snapshots of the world. But Intel hopes Loihi will allow cameras to function more like natural eyes, responding almost instantly to visual change. The chip will take those biological-like signals from the camera and process them more like a biological brain.

Intel expects these improvements in sensing and analysis will make a drone as fast and agile as a bird without the heavy, power-hungry CPU. https://dronedj.com/2021/01/11/intel-envisions-drones-with-biological-brains-and-eyes/#more-46124

Abu Dhabi University receives a grant for Al-powered drones Josh Spires Jan. 11, 2021



The Abu Dhabi University has announced that it has received a grant of Dhs 150,000 (\$40,000) from Emirates Global Aluminum to put to use in three drone or robot-related ideas that electrical, computer and mechanical engineering students have come up with.

<u>The grant</u> will be used to support three projects that are focused on artificial intelligence-powered drones and robots, readying the university for its upcoming AI robotics competition.

Last year, the university managed to take first and second spots in the robotics competition, which required their Al-drones to solve a challenging set of problems under a set of extreme conditions. This year the students' drones and robots will face the same condition and be required to take autonomous measurements of carbon-baking furnaces.

The students will now begin building and testing their autonomous creations in preparation for the competition later in the year. Once the teams think their drones are ready to go, an internal audit team from the university will go over everything to ensure all systems are working perfectly. https://dronedj.com/2021/01/11/abu-dhabi-university-receives-a-grant-for-ai-powered-drones/#more-46071



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Military Drones and Sensors are an Exploding Market Miriam McNabb January 11, 2021



The market in military drones and sensors "will be one of the most dynamic growth sectors of the world aerospace industry this decade," says the Teal Group's recent analysis.

"Teal Group's 2020/2021 market study estimates that UAV production will increase from current worldwide UAV production of \$5.6 billion annually in 2020 to \$14 billion in 2029, totaling \$95.5 billion in the next ten years," says a press release. "Military UAV research spending would add another \$64.5 billion over the decade."

As military drones and sensors are increasingly crossover products with the commercial drone market, sector growth could have significant influence on the drone industry as a whole. In addition to the military drone market, sensors and payloads are part of the sector growth, including Electro-Optical/Infrared Sensors (EO/IR) — found in drones like FLIR's Black Hornet, a drone that fits in the palm of the hand.

"Following a funding downturn in recent years as several legacy endurance UAV sensor programs ended, Teal forecasts a near-term rise in the "default sensor" EO/IR market, from \$1.8 billion in FY20 to \$2.3 billion in FY24..." says the press release. https://dronelife.com/2021/01/11/military-drones-and-sensors-are-an-exploding-market/

China's WJ-700 Falcon armed reconnaissance UAV makes maiden flight Kelvin Wong 12 JANUARY 2021



Beijing-based Haiying General Aviation Equipment, a subsidiary of state-owned defense prime China Aerospace Science and Industry Corporation, has formally unveiled its indigenously developed WJ-700 medium/high-attitude long endurance unmanned aerial vehicle at an undisclosed location on 11 January.

The company also announced that the turbojet-powered

WJ-700 – now officially known as the Lieying (Falcon) "high-altitude, high-speed integrated surveillance and strike", or armed reconnaissance UAV – had performed its maiden flight on the same day.



Specifications released by Hiwing at the public unveiling of the Falcon at Airshow China 2018 – then a large-scale concept model – stated that the air vehicle has a maximum take-off weight of 3,500 kg and a stated endurance of up to 20 hours. Unlike the vehicle-launched, cruise missile-like form factor of the company's earlier armed reconnaissance UAVs, the WJ-700 adopts a more conventional monoplane design with an aerodynamically streamlined fuselage measuring about 9–10 m long that supports a retractable tricycle undercarriage.

https://www.janes.com/defence-news/news-detail/chinas-wj-700-falcon-armed-reconnaissance-uav-makes-maiden-flight

New Range of Rhomboidal-Wing UAVs Unveiled 08 Jan 2021 Mike Ball



<u>FLY-R</u> has launched a new range of UAVs based on a rhomboidal-wing configuration. The design was first proven on a smaller 1.5 meter-wingspan unmanned aircraft, and has been applied to larger UAV models with wingspans of up to 6m.

According to the company, the rhomboidal aerodynamic design provides the same lift capacity as a conventional cantilever wing of an equivalent area with twice the span, thus making UAV designs more compact. Enhanced aerodynamic performance results in lower fuel consumption, and the rhomboidal configuration also translates into a smaller footprint on the ground as well as shorter take-off and landing distances.

FLY-R has applied the rhomboidal configuration to a commercial aircraft thus bringing the advantages of excellent aerodynamic efficiency and high performances for low fuel consumption. The CR-1200 project is powered by a hybrid system including two electrical motors. The rhomboidal configuration also translates in a small footprint on ground and short take-off and landing distances. <a href="https://www.unmannedsystemstechnology.com/2021/01/new-range-of-rhomboidal-wing-uavs-unveiled/?utm_source=UST+eBrief&utm_campaign=38bb7a41fd-eBrief_2021_12Jan&utm_medium=email&utm_term=0_6fc3c01e8d-38bb7a41fd-119747501

Cyprus Joint Rescue Coordination Center Uses Upgraded C-Astral Drones 12 Jan 2021 Mike Ball

<u>C-Astral</u> has successfully upgraded its legacy Bramor C4EYE UAS for the Cyprus-based Joint Rescue Coordination Center, which has been using the system for search and rescue missions for over four years.





Their operations require aerial surveillance both on land and over the sea, and the group wished to enhance their existing system to achieve better mission performance and results. The JRCC uses a drone ground control station that is integrated into a rapidly deployable tactical operations van, and the main requirement of the project was to extend optical surveillance capabilities beyond their

existing network utilizing a stationary vessel traffic surveillance system.

Following an evaluation of the concept of operations, C-Astral engineers upgraded the legacy system with a state-of-the-art payload and enhanced drone communications with a new digital IP link, extending range up to 50km line-of-sight. The upgraded system now provides JRCC with a multirole capability that handles SAR, naval traffic control and fire surveillance. <a href="https://www.unmannedsystemstechnology.com/2021/01/cyprus-joint-rescue-coordination-center-uses-upgraded-c-astral-drones/?utm_source=UST+eBrief&utm_campaign=38bb7a41fd-eBrief_2021_12Jan&utm_medium=email&utm_term=0_6fc3c01e8d-38bb7a41fd-119747501

Red Cat partners with Skypersonic Completes Long Distance Drone Flight Remotely January 12, 2021 News



Red Cat Holdings, Inc. announced that Fat Shark, a wholly owned subsidiary, had partnered with Skypersonic, the manufacturer of the Skycopter UAV, to complete a long-distance drone flight remotely. The flight consisted of a pilot, located in Orlando, Florida, controlling a drone flying in Detroit, Michigan. The flight integrated Fat Shark's new

digital technology, "Shark Byte" with Skypersonic's Skycopter and remote pilot software system. The pilot's flight instructions to the drone were transmitted through Skypersonic's servers located in Italy. The companies believe this represents the first commercial completion of a remote flight similar to how drones are used by military forces.

"The ability to control the flight of a drone from thousands of miles away should accelerate the commercial adoption of drone technology, expand the number of business services that can be provided by drones and lower travel and training costs for companies deploying drones," stated Jeff Thompson, CEO of Red Cat. "The combination of our recently launched Shark Byte digital system and Skypersonic's software platform provides video resolution that will enable



Verizon, UPS, and Skyward announce connected drone delivery at CES 2021 January 12, 2021 News



Skyward, A Verizon company, and UPS Flight Forward today announced collaborative efforts to deliver retail products with drones connected to Verizon 4G LTE, as well as 5G testing and integration for delivery. The companies aim to deliver retail products via connected drones at The Villages in Florida.

"We will need the ability to manage and support multiple drones, flying simultaneously, dispatched from a centralized location, operating in a secure and safe environment. To do this at scale, alongside Verizon and Skyward, we'll need the power of 5G," said Carol B. Tomé, CEO of UPS.

"The low latency of 5G and edge compute is ideal for monitoring air traffic in and out of a busy logistics hub, especially those using mixed fleets of autonomous vehicles like drones, trucks and planes," said Mariah Scott, Skyward President. "This year, we'll be taking the collaboration with UPS further by testing 5G Ultra Wideband integrations to connect the sky."

UPS has operated more than 3,800 successful drone delivery flights since the creation of UPS Flight Forward, its drone delivery company, certified by the Federal Aviation Administration in 2019. <a href="https://uasweekly.com/2021/01/12/verizon-ups-and-skyward-announce-connected-drone-delivery-at-ces-2021/?utm_source=rss&utm_medium=rss&utm_campaign=verizon-ups-and-skyward-announce-connected-drone-delivery-at-ces-2021&utm_term=2021-01-12

1,100 drones used to raise awareness of police emergency number in China Josh Spires Jan. 12, 2021

During the recent celebration of the Chinese People's Police Day, drones were used to both promote China's emergency number and thank its police force. The day saw more than <u>1,000</u> <u>drones hit the sky</u>, creating some impressive aerial visuals.



The date (1/10) was chosen for the day as the emergency police number in China is 110, to make it even more memorable for the Chinese people. Along with a 1,100 drone light show, more than 400 police officers took part in a flag-raising ceremony held at the Shanghai Public Security Bureau police training center.



All 1,100 drones take off and go straight into formation, creating a rainbow that then changes into why the drones are flying, Chinese People's Police Day. The drones then create the Chinese police's national flag before displaying all the branches of the police force.

The drones then form into an officer saluting the crowd and then creating the police emblem. At this point, the drones begin to lower toward the ground, creating a cool falling rainbow effect. You can watch the full eight-minute drone show: https://dronedj.com/2021/01/12/1100-drones-used-to-raise-awareness-of-police-emergency-number-in-china/#more-46251

13Jan21

Autel Announces Dragonfish Drone Jason Reagan January 12, 2021



Ahead of <u>CES 2021</u>, drone company <u>Autel</u> announced the release of the new <u>Dragonfish flight platform</u> for the second quarter of this year. A fixed-wing drone, Dragonfish offers a <u>120-minute flight time</u> as well as takeoff/landing capabilities in space-restricted areas and a deployment assembly time

of under three minutes.

With a range of up to 18.6 miles, the Dragonfish also features adaptive tracking, allowing the drone to track vehicles, persons or other moving objects from a range of 6,560 feet. Payloads include a FLIR Boson Radiometric camera, a one-inch sensor photographic cameras and other payloads for specific vertical requirements. "The system is expandable to fit into virtually any workflow, although the Dragonfish was specifically designed for overwatch and other public safety uses," an Autel press release notes. https://dronelife.com/2021/01/12/autel-announces-dragonfish-drone-ahead-of-ces/



GSA to Remove Non-Defense Innovation Unit-Approved Drones From Multiple

Awards Jane Edwards January 13, 2021 Contract Awards, News

The General Services Administration will remove from Multiple Award Schedules



contracts <u>unmanned aircraft systems and other drones</u> to address <u>potential</u> security risks. Its decision does not cover drones approved by the Defense Innovation Unit under the <u>Blue sUAS</u> program, which seeks to provide the Department of Defense and federal agencies with trusted and secure small drones.

The agency said it will post a 30-day advance notification on GSA Interact before issuing a solicitation refresh informing contractors that no drones, except those approved through Blue sUAS, will be awarded using MAS. "Should GSA identify and implement an appropriate risk mitigation strategy, affected contractors may have the opportunity to add drones back to MAS contracts," the notice reads.

A spokesperson for GSA said all <u>non-DIU-cleared UAS</u> will be removed from MAS by Feb. 1, Nextgov reported. <u>DIU-approved drones include those from Altavian</u>, Skydio, Parrot, Teal and <u>Vantage Robotics</u>. <u>https://www.govconwire.com/2021/01/gsa-to-remove-non-defense-innovation-unit-approved-drones-from-multiple-award-</u>

schedules/?utm_campaign=Posts%20from%20GovconWire%20%2001.13.2021%20%28W7HNFB%29&utm_medium=email&utm_source=Executive%20Mosaic%20Publications&_ke=eyJrbF9jb21wYW55X2lkljog_IIRCS0t4UCIsICJrbF9lbWFpbCl6ICJyb2JlcnRocmVhQGdtYWlsLmNvbSJ9

Drones are now taking out the trash in China due to COVID-19 Josh Spires Jan. 13, 2021



A resident in Dalian, China, has come up with a smart solution to take out the trash as the country endures another wave of COVID-19 lockdowns. The resident has chosen to use a drone to drop the package off on the ground through their apartment window.

<u>The video</u> of the flying trash worker hit Weibo earlier

this week via the Sina Weibo account. In the video, we can see what looks to be a DJI Inspire 1 flying out of a high-rise apartment's window with a bag of trash hanging below. The drone can then be seen dropping the bag off in a designated area for rubbish before making its way back to the apartment.



Commenters on the video were excited by the resident's creative thinking and took note of how drone technology has changed our lives. https://dronedj.com/2021/01/13/drones-are-now-taking-out-the-trash-in-china-due-to-covid-19/#more-46395

14Jan21

Ex-Airbus CEO puts weight behind German air taxi start-up Lilium HEADLINE NEWS JOE PESKETT JANUARY 14, 2021



Munich-based start-up Lilium is developing an electric VTOL five-seater air taxi which achieved its first phase of flight testing in late 2019. The emissions-free aircraft will be able to complete journeys of up to 300 km in one hour on a single charge and is being developed to enter the regional mobility market by 2025.

Here's what Tom Enders had to say in his <u>blog post</u>: "Perhaps the thing that has impressed me most about Lilium was they started with a strong business case and focused from the start on intercity shuttle flights, which allow for higher passenger load factors. I believe Lilium is solving the problem of notoriously low load-factors in on-demand air-taxi businesses of the past. It will also help to get ticket prices down and truly democratize electric flight.

"Furthermore, the young founding engineers had the courage to come up with a technical concept that is tailored for their business model and purposefully different to traditional VTOL solutions. Although it is technically more challenging, they are using electric turbo fans with acoustic liners and have solved the associated engineering challenges.

https://www.commercialdroneprofessional.com/ex-airbus-ceo-puts-weight-behind-german-air-taxi-start-up-lilium/

AeroVironment to Buy Arcturus UAV in \$405M Cash-Stock Deal; Wahid Nawabi Quoted Jane Edwards January 14, 2021 M&A Activity News



Unmanned aircraft system manufacturing company <u>AeroVironment</u> (Nasdaq: AVAV) has agreed to <u>acquire Arcturus UAV</u> in a cash-and-stock transaction valued at approximately \$405M as part of efforts to expand into adjacent segments and broaden UAS portfolio and customer footprint.

"We are excited about the opportunities for value creation through our acquisition of Arcturus UAV, which will enable us to accelerate our growth strategy and expand our reach into the more valuable Group 2 and 3 UAS segments," said Wahid Nawabi, president and CEO of



AeroVironment. Nawabi added that AeroVironment seeks to help clients address a wider set of defense and commercial missions by offering a portfolio of multidomain unmanned platforms, backed by the company's ongoing investments in autonomy and artificial intelligence.

Petaluma, California-based <u>Arcturus UAV</u> employs 270 workers, builds Group 2 and 3 drones and offers services. It currently supports U.S. Special Operations Command's Mid-Endurance UAS programs and the U.S. Army's Future Tactical UAS program. Its products include T-20, a medium endurance catapult-launched system, and JUMP-20, a medium endurance vertical takeoff and landing platform. https://www.govconwire.com/2021/01/aerovironment-to-buy-arcturus-uav-in-405m-cash-stock-deal-wahid-nawabi-quoted/

15Jan21

DJI's 2020 showreel video showcases outstanding drone shots Scott Simmie Jan. 14, 2021



DJI dropped a new video on YouTube today. It's not to promote any specific new product, but rather a showreel highlighting some of the most jaw-dropping shots captured during 2020. And yes, as you'd expect, it's good.

DJI takes its videos seriously. And why wouldn't it? After

all, it's one of the most effective techniques for reaching consumers and showcasing the technical capabilities of its product line. Today, January 14, DJI dropped its 2020 Showreel. It highlights bits and pieces from the various promo videos created throughout the year into one spectacular mashup. And yes, there are plenty of drone shots. And so, without further adieu, here you go: https://dronedj.com/2021/01/14/djis-2020-showreel-video-showcases-oustanding-drone-shots/

FAA Unveils Grant Awardees for UAS Safety Research Effort Brenda Marie Rivers January 14, 2021 News, Press Releases, Technology



The <u>Federal Aviation Administration</u> has earmarked \$5.8 million to fund the unmanned aircraft system research and training efforts of universities under the agency's <u>Air Transportation Center of Excellence</u> for UAS program.

FAA said Wednesday that the grants will support its <u>Alliance for System Safety</u> of <u>UAS through Research Excellence</u> (ASSURE) initiative which seeks to advance next-generation air travel and safely integrate drones into the National Airspace System.



The initial awardees of fiscal year 2021 ASSURE grants will perform research and development work on eight topic areas including air carrier operations, UAS cargo operations, high-bypass UAS engine ingestion, small UAS mid-air collision, sUAS navigation and detect-and-avoid technologies.

<u>Steve Dickson</u>, administrator of FAA, said each grant is meant to explore subject areas that could support the integration of unmanned air carriers while driving economic and transportation benefits. https://www.executivegov.com/2021/01/faa-unveils-grant-awardees-for-uas-safety-research-effort/

Missing Tennessee woman found with the help of a drone Josh Spires Jan. 14, 2021



A woman from Rutherford County, Tennessee, has been found by an emergency response team using a drone to aid in the search. Earlier in the week, deputies were responding to a call concerning a house off of U.S. Highway 41 where a distraught woman was seen walking into the woods in freezing

temperatures.

Due to the low temperatures, two drones were sent up to search for the woman. The drones were launched by the Rutherford County Emergency Management Agency and the Rutherford County Fire Rescue. Not long after the drones were launched, the woman was found about 1,900 feet from the area the drones were launched from near the house. The drone pilots then helped guide deputies to the woman's location, where she was then taken to the StoneCrest Medical Center for an evaluation.

On top of the cross-agency work, this wouldn't have been over in such a short amount of time with a great result if it wasn't for the drones in the air. It's always great to see drones being spoken about positively and that they are actually a useful tool for many people, rather than a negative thing that is used to spy or cause harm. https://dronedj.com/2021/01/14/missing-tennessee-woman-found-with-the-help-of-a-drone/#more-46536