UAS and SmallSat Weekly News

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Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

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Aurora Flight Sciences Selected by DARPA for Active Flow Control X-Plane Project January 20, 2023 News

DARPA has awarded Aurora Flight Sciences with a contract to move forward with the detailed design and development phase of the Control of Revolutionary Aircraft with Novel Effectors (CRANE) program. The program, which aims to create an X-plane demonstrator capable of flying without traditional exterior wing and tail controls, successfully completed its Phase 1 preliminary design, resulting in an innovative testbed aircraft that utilizes active flow control (AFC) to generate control forces in wind tunnel tests.

During Phase 2, Aurora Flight Sciences will focus on the detailed design and development of flight software and controls, leading up to a critical design review of the X-plane demonstrator. The contract also includes a Phase 3 option, in which DARPA plans to fly a 7,000-pound X-plane that addresses the two primary technic al challenges of incorporating AFC into full-scale aircraft and relying on it for controlled flight.

The demonstrator aircraft will feature unique, modular wing configurations that allow for future integration of advanced technologies for flight testing by either DARPA or potential transition partners. The AFC technology suite holds multiple opportunities for aircraft performance improvements such as elimination of moving control surfaces, drag reduction, high angle of attack flight, thicker wings for structural efficiency and increased fuel capacity, and simplified high-lift systems. https://uasweekly.com/2023/01/20/aurora-flight-sciences-selected-by-darpa-for-phase-2-of-revolutionary-active-flow-control-x-plane-project/?utm_source=rss&utm_medium=rss&utm_campaign=aurora-flight-sciences-selected-by-darpa-for-phase-2-of-revolutionary-active-flow-control-x-plane-project&utm_term=2023-01-20

Counter Unmanned Aerial Systems Developed by SAIC Honored with BIG Innovation Award January 20, 2023 News

Science Applications International Corp. has been named a 2023 Business Intelligence Group's (BIG) Innovation Award Winner for its Counter Unmanned Aerial Systems (CUAS) solution. The annual BIG Innovation Award recognizes organizations, products and people that bring new

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

ideas to life in innovative ways. Organizations around the world submit their recent innovations, which are judged by a select group of business leaders and executives.

SAIC's CUAS was developed to safeguard against the threats drones pose to defense and civilian infrastructures using CUAS architectures comprised of sensors and effectors within scalable, platform-agnostic command and control capabilities. The system is capable of monitoring and protecting military bases, commercial flights, and borders by performing drone detection, identification and mitigation. Using embedded artificial intelligence and machine learning, SAIC's CUAS supports a single operator in mission-execution decisions.

In April 2022, following a field test demonstration, the U.S. Army's Joint Counter-small Unmanned Aircraft Systems Office (JCO) named SAIC as the most robust and qualified of three companies recommended for Counter-UAS as a Service (CaaS).
https://uasweekly.com/2023/01/20/counter-unmanned-aerial-systems-developed-by-saic-honored-with-big-innovation-award/?utm_source=rss&utm_medium=rss&utm_campaign=counter-unmanned-aerial-systems-developed-by-saic-honored-with-big-innovation-award&utm_term=2023-01-20

Dedrone Partners with G4S in EMEA to Provide Airspace Security in Over 50 Countries January 20, 2023 News

Dedrone, a leading provider of smart airspace security solutions, announced today that it has entered a partnership with G4S, an Allied Universal® company, to cover Europe, Middle East and Africa (EMEA). Under the partnership, G4S will now offer Dedrone's command and control (C2) drone detection, tracking and identification (DTI) solution suite to its customers in more than 50 countries across EMEA.

G4S's first client to benefit from this partnership is the State Police of Latvia, which has used Dedrone to establish a mobile drone detection system for large events in Riga. "The first tests with Dedrone have proven that it's of high quality; it will undoubtedly improve our ability to strengthen Latvia's internal national security." said State Police of Latvia representative with responsibility for Uncrewed Aerial Systems and air navigation, Māris Vitkovski.

The State Police of Latvia has 6000 registered drone pilots and many more who are not licensed, so the police need to strike a balancing act between guarding against the risk of

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

drones and allowing people the freedom to use them in a safe and responsible way. https://uasweekly.com/2023/01/20/dedrone-partners-with-g4s-in-emea-to-provide-airspace-security-to-customers-in-over-50-countries/?utm_source=rss&utm_medium=rss&utm_campaign=dedrone-partners-with-g4s-in-emea-to-provide-airspace-security-to-customers-in-over-50-countries&utm_term=2023-01-20

Drone pilot videos bull moose's rate double-antler head-bang snap Bruce Crumley - Jan. 20th

If only haircuts were as exciting. When bull moose crave a more light-headed feeling each winter, they rid themselves of their weighty antlers with a sudden, mighty shake of the noggin that snaps them right off – an entirely unpredictable gesture performed deep in the wild that a Canadian drone pilot with impeccable timing somehow managed to capture on video.

Derek Burgoyne has a thing about moose antlers that motivates him into the frozen forests of New Brunswick in the dead of winter to search for the over-sized members of the deer family – or at least come across remains of their discarded headgear for his collection. But in addition to being a tad weird that way, Burgoyne also proved himself incredibly lucky when on a recent outing he decided to begin recording from the drone he uses to locate bull moose at the very moment one of the creatures snapped both its horns off at once with a couple abrupt shakes.

Burgoyne says he was out snowshoeing around the forest on January 12 when he filmed the rare event. Not only do the animals usually rid themselves of their antlers earlier in winter, but they tend to ditch them individually, sometimes hours or days apart, which is why there is no shortage of footage showing the creatures heave-going their skull protrusions one at a time, virtually never in pairs.

Burgoyne, however, not only found a bull moose still sporting both antlers this deep into winter, but got to witness it snapping its antlers off at the same time – and immortalized the sight on his drone video to boot. https://dronedj.com/2023/01/20/drone-pilot-videos-bull-mooses-rate-double-antler-head-bang-snap/#more-90377

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

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World first: autonomous, multiple BVLOS urban drone flights take off in Israel

January 18, 2023 Philip Butterworth-Hayes UAS traffic management news

Israeli drone operator FlyTech IL, part of the Aerodrome Group (TASE: ARDM) together with their strategic partner FlightOps Ltd, have started a one-week operational trial of multiple autonomous drone operations in Ramla and Lod, in the suburbs of Tel Aviv on behalf of the Israeli police.

In this week's trial, two drones will be managed by FlyTech's Yahav Preiss, the first commercial drone pilot licensed to operate beyond visual line of sight (BVLOS) in Israel.

The operation works as follows. The police hotline receives a call. The drone pilot (sitting in the Command-and-Control Center) receives an address from a police official where an incident has been reported. The pilot then plugs all information into the FlightOps system and monitors the autonomous drone flight. The drone transmits the visual back to police command and the control center. At the end of the mission the pilot orders the drone to return to base.

"The drones are fitted with three sim-cards from three different mobile network operators and the drones are controlled via LTE network secure links," said Yahav Preiss. In the event of an incident, the FlightOps multi-drone operating system alerts the drone, and it takes off, flying a geo-fenced, autonomous route to the scene, transmitting images of the event to the police control center. Eventually, and if the trials are successful, the images will be transmitted to police vehicles.

One of the most difficult elements of the trial was to work with the regulator, the air force and Tel Aviv airport on a detailed airspace assessment to ensure the drones can fly safely in shared airspace and below the tops of buildings – which required reducing minimum separation distances between aircraft to 500ft and within 100m of the No-Fly Zone perimeter.
https://www.unmannedairspace.info/news-first/world-first-autonomous-multiple-bvlos-urban-drone-flights-take-off-in-israel/

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Inmarsat launches compact satellite terminal to support UAV datalink communications January 23, 2023 Jenny Beechener

Inmarsat and the European Space Agency (ESA) have announced the development of a compact satellite terminal for Uncrewed Aerial Vehicles (UAVs) as part of the Iris air traffic modernisation programme: paving the way for UAVs to be safely integrated into commercial airspace.

The independent technology company TTP is delivering the core technology for a low size, weight, power and cost (SWaP-C) terminal with an integrated antenna. The advanced terminal, available later this year, will be suitable for almost all UAVs, providing a secure datalink between uncrewed vehicles, remote operators, and air traffic control.

The miniaturized Inmarsat terminal is designed to bring scalable Beyond Visual Line of Sight (BVLOS) operations and will unlock a range of possibilities for flight operators such as telemetry for platform health monitoring, IP voice relay for air traffic control communications, and data services such as video streaming for inspection applications. Optional hybrid connectivity will also be integrated within the terminal and can be utilized where cellular coverage is available through the intelligent routing of data and services.

As part of Iris, TTP is also contracted for research and development of UAV safety services, for example last mile tactical deconfliction, known as detect and avoid. This, alongside the new UAV satcom terminal and technology from other Iris partners, will help deliver elements needed for UAVs to safely operate in commercial airspace.
https://www.unmannedairspace.info/latest-news-and-information/inmarsat-launches-compact-satellite-terminal-to-support-uav-datalink-communications/

Special drone collects environmental DNA from trees January 18, 2023 ETH Zurich

ScienceDaily Ecologists are increasingly using traces of genetic material left behind by living organisms called environmental DNA (eDNA), to catalogue and monitor biodiversity. Based on these DNA traces, researchers can determine which species are present in a certain area.

Obtaining samples from water or soil is easy, but other habitats -- such as the forest canopy -- are difficult for researchers to access. As a result, many species remain untracked in poorly explored areas. Researchers at ETH Zurich and the Swiss Federal Institute for Forest, Snow and

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Landscape Research WSL, and the company SPYGEN have partnered to develop a special drone that can autonomously collect samples on tree branches.

The drone is equipped with adhesive strips. When the aircraft lands on a branch, material from the branch sticks to these strips. Researchers can then extract DNA in the lab, analyze it, and assign it to genetic matches of the various organisms using database comparisons. https://www.sciencedaily.com/

Amazon Drone Delivery Layoffs: Prime Air Hit Among 18,000 Job Cuts Miriam McNabb January 22, 2023

Hit with stringent regulations concerning testing and a rapidly evolving technology ecosystem, the program has gone through ups and downs. In 2021, Wired Magazine reported that the Prime Air team in the U.K. was in disarray, laying off workers and reshuffling roles.

In 2022, however, Amazon seemed to make major progress with their drone delivery programs. Amazon announced new FAA certifications, plans for new aircraft designs, and two drone delivery test sites. Amazon says they plan to continue the test programs in College Station, TX and Lockeford, CA. The layoffs may, however, indicate that the company won't be pouring investment into the project right now. https://dronelife.com/2023/01/22/amazon-drone-delivery-layoffs-prime-air-hit-among-18000-job-cuts/

Airbus seeks outside investment for solar-powered Zephyr drone program

Reuters January 23, 2023

Jan 23 (Reuters) - Airbus (AIR.PA) said on Monday it was seeking outside investment for its high-altitude surveillance and communications drone program Zephyr, in a bid to scale the business and accelerate its commercialization.

The solar-powered Zephyr drone is designed to linger at an altitude of about 70,000 feet for months at a time for surveillance or to provide a temporary boost to communications. The drone relies on solar energy, with secondary batteries charged in daylight to power overnight flight.

The French aircraft maker has tapped Morgan Stanley to find external partnerships for the unit, which will operate under the brand name 'Aalto,' a company spokesperson told Reuters.

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

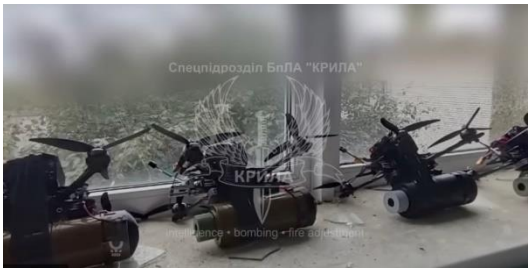
"The idea of the carve-out is to bring like-minded partners to the equation and to be able to scale this business." https://www.reuters.com/business/aerospace-defense/airbus-plans-spin-off-zephyr-drone-programme-ft-2023-01-23/

Dufour Aerospace Secures Major Investment from Vista Equity Partners January 23, 2023

Dufour Aerospace AG, a leading manufacturer of sustainable aviation technology, announced today that it has successfully completed a Series B funding round led by Vista Global Holding Limited, the world's leading global private aviation group. The new funding will be used to further support the development of Dufour's innovative tilt-wing technologies and aerospace products which will be applied in the company's unmanned Aero2 aircraft and its flagship manned Aero3 aircraft.

In addition to Vista, the funding round saw participation from existing investors and two new investors. Vista's investment and industry expertise will provide valuable support in expanding the considerable potential of Dufour's technologies. https://uasweekly.com/2023/01/23/dufour-aerospace-secures-major-investment-from-vista-equity-partners-to-fuel-rapid-expansion-and-innovation/?utm_source=rss&utm_medium=rss&utm_campaign=dufour-aerospace-secures-major-investment-from-vista-equity-partners-to-fuel-rapid-expansion-and-innovation&utm_term=2023-01-23

Ukraine seeks 1,000 'FPV kamikaze drones' in new funding drive Bruce Crumley - Jan. 23rd 2023



It's not something one often sees from usually secretive, stealthy intelligence services: A specialized section of Ukraine's Ministry of Defense has made a public appeal for donations to its project to purchase 1,000 first-person view (FPV) drones for attack missions against Russian forces.

Ukraine's Ministry of Defense announced the effort last Friday, saying its Kryla military intelligence division had launched the effort to assemble a fleet of "FPV kamikaze drones." The 1,000 FPV craft Kryla plans on acquiring will be destined for unabashedly increasingly frequent offensive missions of frontal attacks by Ukraine forces .

Video footage has circulated in recent months of Ukraine pilots using FPV racing drones rigged with explosives to swoop through the open doors of Russian military vehicles or into houses

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

where invading forces were billeting. But Kryla's move to organize that activity on a much wider basis suggests an escalation in the use of UAVs for aerial attacks on both sides. https://dronedj.com/2023/01/23/ukraine-seeks-1000-fpv-kamikaze-drones-in-new-funding-drive/

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This Small Business Donated $2 Million in Counter Drone Tech to the Ukrainian Army

Miriam McNabb January 23, 2023

Edgesource Corporation is a small business in Virginia, delivering airspace security solutions to the public sector. In 2022, Edgesource joined the group of drone companies donating critical equipment to Ukraine, providing approximately two million dollars in Windtalker™ Counter-Small Unmanned Aircraft System (C-sUAS) technology and the centralized Dowding™ common operating platform to the Ukrainian Army.

The Windtalker solution detects and locates drones, their pilots, and more, within a range of 35+ kilometers. Windtalker deploys in 30 minutes or less and can gather more than 30 data fields including serial number, drone location, home location, operator location, flight path, velocity, and altitude. Dowding can be deployed and used by operators with minimal training in less than an hour.

"The Washington Post recently called the Ukrainian conflict 'the first full-scale drone war' in history," said Joe Urbaniak, COO of Edgesource. "And I have to agree. Given the capabilities of our Windtalker and Dowding system, we knew early on that we could help — and donating these systems at the outset of the conflict to Ukraine was the right thing to do to protect Ukrainian cities, civilians, and front-line units." https://dronelife.com/2023/01/23/this-small-business-donated-2-million-in-counter-drone-tech-to-the-ukrainian-army/

FlytBase Hosts NestGen '23 February 23: Best Practices, Solutions for BVLOS Operations

Miriam McNabb: January 23, 2023 by DRONELIFE Staff Writer Ian M. Crosby

FlytBase, Inc. has announced the second edition of NestGen, the industry's largest global virtual summit on autonomous BVLOS drone operations. Held on February 23rd, the 12-hour event will feature over 45 speakers from companies such as DJI, Iris Automation, Elsight, TruWeather Solutions, Hover

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

UAV, Aerodyne, Delta Drone International, Citymesh, Paladin Drones, EVA, Zing Drone Delivery, and Valqari. Topics will include the applications and verticals of autonomous drone technology, drone-in-a-box solutions, BVLOS enablers, and drone delivery operations.

The demo arena will give attendees the chance to see the demonstration of over eight latest drone-in-a-box stations. Attendees will also be free to take part in interactive workshops, product displays, hands-on demonstrations, specialized breakout sessions, and Q&A segments. https://dronelife.com/2023/01/23/flytbase-hosts-nestgen-23-february-23-best-practices-solutions-for-bvlos-drone-operations/

How will drone corridors change the logistics sector? 16 January, 2023 Viola Caon

Drone corridors could transform the logistics sector, but issues related to regulation and expense stand in the way of their mass take-up.

The global drone logistics and transportation market was worth $7.5bn in 2020. According to Emergen Research, that figure will reach $32bn by 2028.

The increasing use of drones for the faster delivery of goods, combined with the growth of the e-commerce sector, increasing investment in research and development in drones and other advancements in technology were cited as some of the key factors driving market revenue growth.

The UK government, for instance, has been developing the idea of drone corridors to be rolled out across the country to make the delivery of goods smoother and faster. In mid-2022, it gave its approval for Project Skyway to go ahead with the creation of a 265km unmanned aerial vehicle corridor – also known as a drone corridor.

According to PwC's recent Skies Without Limits v2.0 report, adopting UAVs in this way could result in £22bn of net cost savings in the UK up until 2030, a reduction in carbon emissions of 2.4 million tonnes in that time and the creation of 650,000 jobs.
https://www.investmentmonitor.ai/features/how-will-drone-corridors-change-the-logistics-sector/?utm_campaign=Energy%20Drone%20%26%20Robotics%20Coalition%20Content&utm_medium=email&_hsmi=242963754&_hsenc=p2ANqtz-_qfOt01iPTEQ03VntD_GSNqnl-BBXB4Tvmf54RUCjlfyuz1HAiq3FUJW4GxNu3F0lN9lNevcomek_xyt6dj1tzne3BJw&utm_content=242963753&utm_source=hs_email

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Backpackable Fixed-Wing UAS Wins Technology Awards Mike Ball / 23 Jan 2023

WINGXPAND, the developers of an innovative fixed-wing UAV (unmanned aerial vehicle) platform that expands from a backpack, have confirmed that the company has won accolades for both "Most Innovative Technology of the Year" and "Top Company for Women in Emerging Aviation Technology."

The WINGXPAND aerial intelligence platform has been designed to fulfil a wide variety of roles, including helping farmers grow more yield, allowing public safety crews to respond to emergencies faster, and keeping soldiers safe. The U.S.-made and patented aircraft combines the small size and simplicity of a quadcopter drone with the power and endurance of airplane wings, allowing it to fly up to five times longer and carry up to ten times more weight than traditional drones.

In 2022, WINGXPAND was one of 12 businesses competitively selected out of more than 600 international companies to participate in Techstars Los Angeles, a startup accelerator program in partnership with the U.S. Space Force and NASA's Jet Propulsion Laboratory. WINGXPAND was also chosen as a 2022 'St. Louis Arch Grants' recipient.

Customer demand and support from key stakeholders has driven WINGXPAND's growth across a variety of public and private sector industries, including agriculture, public safety, oil & gas, and disaster response. https://www.unmannedsystemstechnology.com/2023/01/backpackable-fixed-wing-uas-wins-technology-awards/?utm_source=UST+eBrief&utm_campaign=74c57f13a4-ust-ebrief_2023-jan24&utm_medium=email&utm_term=0_6fc3c01e8d-74c57f13a4-111778317&mc_cid=74c57f13a4&mc_eid=acabe18a61

Everdrone First on Scene Solutions™ extends commercial contract in Region Västra Götaland January 24, 2023 News

Early December 2022, officials in Region Västra Götaland, Sweden, decided to extend the Everdrone First on Scene Solutions™ project of drones as first responders throughout 2023.

An important step towards a permanent establishment of the

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

drone-delivered AED units to the entire region, but also an opportunity to keep gathering insights in collaboration with the largest regional healthcare provider in Sweden.

The use of drones to promptly deliver defibrillators has proven to be significantly faster than traditional ambulance first responder assistance. The decision to extend is the next substantial step towards integrating drone deliveries of AED (automated external defibrillators) into the Region's life-saving chain on a permanent basis.

Region Västra Götaland and Everdrone are currently exploring ways to expand the use of Everdrone's technology and drones, such as using them to transmit live-view imagery of accident sites. Everdrone's LiveView™ application has been specially developed to provide emergency services with vital and time-sensitive information for making quick decisions before first responders arrive at the scene. https://uasweekly.com/2023/01/24/everdrone-first-on-scene-solutions-extends-commercial-contract-in-region-vastra-gotaland/?utm_source=rss&utm_medium=rss&utm_campaign=everdrone-first-on-scene-solutions-extends-commercial-contract-in-region-vastra-gotaland&utm_term=2023-01-24

American Water secures new waiver for high-altitude drone flights Ishveena Singh - Jan. 24th 2023

American Water says it has earned a new waiver from the Federal Aviation Administration that would allow the utility to fly its drones both beyond visual line of sight and up to an altitude of 1,500 feet above ground level.

American Water uses its drone program to capture hundreds of thousands of images and aerial maps of critical assets annually. Aerial imagery helps the water and wastewater utility company to monitor its systems and improve the reliability of its services.

Last year, American Water secured a BVLOS waiver to safely inspect the facilities that become inaccessible for extended periods of time during flooding events. Now, the new authorization certificate provides the company with opportunities for enhanced environmental monitoring.

American Water uses Censys Technologies Sentaero BVLOS V2 aircraft for long-range mapping and inspection missions. The drone's high-resolution cameras help to inspect facilities from miles away while staying in the air for over an hour. https://dronedj.com/2023/01/24/american-water-drone-program-bvlos/

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Edgesource donates $2M in small UAV counter-drone tech to Ukraine Bruce Crumley - Jan. 24th 2023

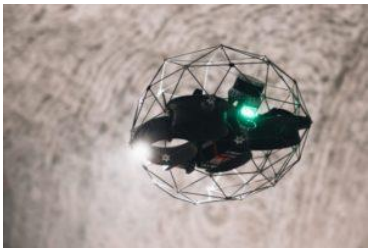
Edgesource, a small company providing contracting services and tech to US government agencies, has revealed that over the course of 2022, it donated $2 million worth of its counter-drone detection system for smaller UAVs to Ukraine for its battle against Russia's invasion.

Based in the Washington, DC, area, Edgesource contributed early and often to Ukraine's defense by providing the same counter-drone system it supplies US government and public agencies to deal with the rapidly expanding numbers of UAVs in operation.
Following Russia's invasion of the country last February, Edgesource quickly moved to begin donating those assets to Kyiv in coordination with the US Pentagon and Special Operations Forces, the Embassy of Ukraine, the Ukrainian Ministry of Defense, and Ukrainian Special Forces.

Windtalker detects and locates drones, their pilots, and 30 different kinds of operational data – including craft serial number, location, operator position, flight path, velocity, and altitude – over a range of 35-plus kilometers. https://dronedj.com/2023/01/24/edgesource-donates-2m-in-small-uav-counter-drone-tech-to-ukraine/

25Jan23

Inside the Department of Energy Using Drones to Map Radioactive Waste Storage Vaults Miriam McNabb January 24, 2023 DRONELIFE Staff Writer Ian M. Crosby



Flyability's Elios 3 has successfully completed a 3D mapping operation of a radioactive waste storage vault following more than a year of preparation and research. The information obtained in the mapping project will prove crucial to planning the vault's removal. This is thought to be the first time a drone has been deployed to enter a high-level radioactive waste storage vault.

The mission was conducted last November at the Idaho Nuclear Technology and Engineering Center at the Idaho National Laboratory Site by a team of roughly 50 people, who covered the

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

top of the vault with a plastic tent to guarantee the mission took place indoors as per FAA regulations and Department of Energy (DOE) requirements, and who operated a crane to lift the vault's lid and hatch.

If the drone were lost during the mission, it would not be possible to retrieve it. However, the Elios 3 succeeded, and DOE contractor Idaho Environmental Coalition was able to gather all the necessary LiDAR data to create a 3D map of the vault in just one 7-minute flight. An expert from 3D mapping software company GeoSLAM was in attendance to process the LiDAR data on GeoSLAM's software, guaranteeing the model would meet the IEC's needs.
https://dronelife.com/2023/01/24/the-department-of-energy-project-using-drones-to-map-radioactive-waste-storage-vaults/

Turkish company Baykar wins $370 million drone contract from Kuwait

Burak Ege Bekdil Friday, Jan 20

A Turkish Bayraktar TB2 combat drone is on view during a presentation at the Lithuanian Air Force base in Siauliai, Lithuania, on July 6, 2022.

ANKARA — Turkish drone maker Baykar has announced another deal with a foreign government, increasing its number of export markets to more than two dozen.

In a Jan. 18 statement, Baykar said it signed a contract worth $370 million to sell armed Bayraktar TB2 drones to the Kuwait Defense Ministry but did not disclose the number of drones or a delivery timetable.

Last month, Baykar signed a deal to sell three Bayraktar TB2s to Albania. A Turkish procurement official said further TB2 sales to Albania and other Balkan militaries, including Serbia and its regional rival Kosovo, are very likely in the next couple of years.

Baykar has announced exports accounted for as much as 98% of the company's annual sales in 2022. An industry source estimated Turkey is operating around 300 Baykar drones. The company has exported about 250 drones.
https://www.defensenews.com/unmanned/2023/01/20/turkish-company-baykar-wins-370-million-drone-contract-from-kuwait/

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Terra Drone Raises $14m in Saudi Arabia January 25, 2023 sUAS News – The Business of Drones

Terra Drone Corporation, a leading drone and Urban Air Mobility (UAM) technology provider, has raised $14 million in funding from Wa'ed Ventures, the venture capital arm of the biggest oil producer in the world, Aramco. With this financing, Terra Drone will set up a new subsidiary in the Kingdom of Saudi Arabia, Terra Drone Arabia, in line with the Saudi government's "Vision 2030."

First announced in 2016, the Vision 2030 reform plan aims to stimulate economic transformation in Saudi Arabia by reducing the country's dependence on hydrocarbons. Technology is at the heart of this initiative, and the Saudi government is focusing its efforts to promote the use of drones in services such as asset inspections.
https://www.legendaryleadersininnovation.com/feeds/410/results/226f3ae07ee0013b4c300242ac110002

Elroy Air Secures $2B in Aircraft Orders, Relocates Flight Test Operations January 25, 2023 News

Elroy Air, a company that specializes in developing innovative end-to-end autonomous vertical take-off and landing (VTOL) aerial cargo systems, has recently signed an agreement with LCI, a leading aviation company and a subsidiary of the Libra Group. The agreement includes commitments to purchase up to 40 of Elroy Air's Chaparral VTOL aircraft, with deposits already paid for the first 20 vehicles. This deal brings Elroy Air's total aircraft demand to more than $2 billion, with commitments for 900 Chaparral systems across multiple sectors including commercial, defense, and humanitarian.

The Chaparral is the first of its kind, a fully autonomous VTOL cargo delivery system. It is designed to transport up to 500 lbs of goods over a range of 300 nautical miles. The aircraft is enabled by a turbine-based hybrid-electric powertrain with distributed electric propulsion and specially designed aerodynamic modular cargo pods. The Chaparral's capabilities are well suited for emergency situations, such as disaster relief, firefighting, and humanitarian operations, as

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

well as for logistics, without the need for pilots or airport infrastructure. Elroy Air has recently moved its flight testing facility to Byron Airport in Byron, California.
https://uasweekly.com/2023/01/25/elroy-air-secures-2b-in-aircraft-orders-relocates-flight-test-operations/?utm_source=rss&utm_medium=rss&utm_campaign=elroy-air-secures-2b-in-aircraft-orders-relocates-flight-test-operations&utm_term=2023-01-25

Choctaw Nation's Beyond Program Achieves FAA Approval for Extended Flight Operations January 25, 2023 News

The Choctaw Nation of Oklahoma (CNO) Beyond Program, in partnership with uAvionix, has received approval from the Federal Aviation Administration for Beyond Visual Line of Sight (BVLOS) operations at the Emerging Aviation Technology Center UAS Test Range. This marks the second BVLOS waiver by the FAA for the combination of uAvionix's SkyLine software and SkyLink hardware in as many months, allowing drone pilots operating at the CNO range to leverage only an Electronic Observer while meeting requirements to remain well-clear of crewed aircraft when the uncrewed aircraft is beyond the pilot's visual range of sight.

The approved waiver signifies that uAvionix and the CNO have demonstrated to the FAA that their aircraft detect and avoid systems, procedures, and the control network meet the safety threshold for operations in the national airspace. Key components of the system include the uAvionix SkyLine C2 management platform and pingStation3 dual-mode ADS-B receivers. The SkyLine C2 management platform is integrated with the DeTect™ Harrier radar as part of the surveillance layer and is used to control several CNO and uAvionix-owned eVTOL aircraft through the uAvionix muLTElink and SkyLink series of C2 radios.
https://uasweekly.com/2023/01/25/choctaw-nations-beyond-program-achieves-faa-approval-for-extended-flight-operations-with-uavionix-installation/?utm_source=rss&utm_medium=rss&utm_campaign=choctaw-nations-beyond-program-achieves-faa-approval-for-extended-flight-operations-with-uavionix-installation&utm_term=2023-01-25

EDGE Invests in High Lander, a Leader in Unmanned Air Traffic Management

January 25, 2023 News

The UAE's EDGE, one of the world's leading advanced technology and defense groups, has announced a strategic investment in High Lander, the company behind Universal UTM, a drone-agnostic unmanned traffic management solution. The $14 million investment creates a ground-

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

breaking partnership and is already forging ongoing deals and high-value opportunities in both the military and civilian domains between some of the world's biggest technology providers, as both companies progress along their respective roadmaps.

As part of its international growth strategy, EDGE, which comprises an impressive portfolio of 20 complementary companies, is placing a clear focus on the development of autonomous systems, including unmanned aerial vehicles (UAVs), smart weapons, and cyber technologies. The group is keen to further assist High Lander in developing its next-generation Universal UTM solution which enables the safe coexistence of manned and unmanned aviation. EDGE aims to utilize Universal UTM in the management of autonomous operations.

High Lander's Universal UTM oversees the busiest airspaces, enabling multiple, simultaneous drone operations. From pre-flight authorization to mid-mission changes and post-flight logs, Universal UTM enables efficient management of all aspects of airspace control.

This strategic partnership will allow EDGE to advance its autonomous capabilities and High Lander to scale globally, positioning them at the forefront of the command and control and unmanned traffic management sectors relating to drones.
https://uasweekly.com/2023/01/25/edge-invests-in-high-lander-a-leader-in-unmanned-air-traffic-management/?utm_source=rss&utm_medium=rss&utm_campaign=edge-invests-in-high-lander-a-leader-in-unmanned-air-traffic-management&utm_term=2023-01-25

MightyFly unveils its Cento second-generation cargo drone Bruce Crumley - Jan. 25th 2023

San Francisco Bay Area cargo UAV developer MightyFly has unveiled the second generation of its hybrid-powered vertical takeoff and landing (VTOL) drone, Cento, which it plans to produce and operate for end-to-end freight services on flights of up to 600 miles.

The new Cento version of MightyFly's cargo drone has already begun testing following the Federal Aviation Administration issuing the craft a Special Airworthiness Certificate and a Certificate of Authorization for long-range operation. The company says the approval to begin

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

demonstrations of autonomous VTOL flights of up to 600 miles with 100 pounds of freight aboard is "unprecedented in the industry."

Mightyfly says presentation of its Centro cargo drone comes less than two years since the company raised $5.1M seed funding for the second-generation VTOL and just nine months after its initial concept stage. The 13.1 x 16.7-foot autonomous UAV is made up of a high wing carbon fiber airframe, eight electric vertical lift fans, one forward propulsion propeller, and a 6 x 1 x 1-foot internal payload bay that can hold 96 small USPS packages.

The cargo drone's hybrid powertrain shifts between an internal combustion engine that recharges depleted batteries that will otherwise be used for flight, enabling Centro to make multiple deliveries along a route, or single long-haul run.
https://dronedj.com/2023/01/25/mightyfly-unveils-its-cento-second-generation-cargo-drone/

EU launches Galileo's High Accuracy Service positioning feed worldwide Bruce Crumley - Jan. 25th 2023

The European Union (EU) has announced the operational launch of the High Accuracy Service (HAS) positioning system from its Galileo global navigation satellite platform – a location-fixing application that becomes available free of charge to myriad users worldwide, including drone operators.

In announcing the start of HAS functionality from Galileo, EU officials said the service will provide users around the world with significantly enhanced precise point positioning data over existing systems, and entirely free of charge to boot.

Introduced to the public after a period of testing, the EU's HAS improves the accuracy of Galileo's positioning performance to better than 20 centimeters in horizontal domain, and 40 centimeters vertically in nominal conditions of use. That data is beamed to connected tech around the world through the satellite's E6-B spatial signal and via the internet.

With the testing of HAS that began in 2019 now terminated, the executive director of the EU's Agency for the Space Program, Rodrigo da Costa, said the highly accurate positional feeds from the Galileo system become available for safety road technologies, drone navigation, and location applications used in agriculture, rail, aviation, maritime, space, consumer solutions,

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

and geomatics across the globe. https://dronedj.com/2023/01/25/eu-launches-galileos-high-accuracy-service-positioning-feed-worldwide/#more-90504

26Jan23

Pixhawk Releases Latest Open Standards: Helping Get New Drones on the Market, Faster Miriam McNabb January 25, 2023

Pixhawk v6 offers a robust, feature rich set of standards designed to support innovation through interoperability – and help manufacturers get new aircraft to market.

The Dronecode Foundation (DF) is the organization behind the Pixhawk FMU (Flight Management Units) Open Standards, with contributions and participation from the Pixhawk Special Interest Group, open to all members of the Dronecode Foundation.

What is Pixhawk? Pixhawk isn't a particular product; it is a set of open standards endorsed by major semiconductor manufacturers, software companies, and drone engineering companies. These standards cover requirements for many aspects of hardware and electronics design in drones. The Pixhawk Special Interest Group is in charge of developing the latest standards through recurring public meetings hosted by the Dronecode Foundation. https://dronelife.com/2023/01/25/pixhawk-releases-latest-open-standards/

In home of Kalashnikov, Russians fight plan to turn mall into drone factory Robyn Dixon January 26, 2023

Former Russian president Dmitry Medvedev, now deputy chairman of the country's security council, visits the Kalashnikov Group plant in Izhevsk on Tuesday. (Yekaterina Shtukina/AFP/Getty Images)

As Russia seeks to mobilize its industries and citizens to fight its war on Ukraine, a group of angry small-business owners and residents in one city has shown there are limits to the sacrifices they are willing to make as they fight to keep a shopping mall from turning into a drone-production plant. Izhevsk drone company Aeroscan, which recently took over the Italmas shopping mall, served eviction notices last month to all but one of the mall's businesses.

Robert Rea | Axcel Innovation | Suffolk, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Local resident Oleg Zhitnikov has organized a petition against the plan, signed by nearly 5,000 people within two weeks. The shopping and entertainment center houses a water park, cinema, a children's entertainment park, clothing stores, cafes, fast-food outlets, and retail facilities.

In a nation where even the mildest criticism of the war in Ukraine is ruthlessly repressed, opponents of the project have been at pains to underscore that they do not oppose drone production in general, just not in their backyard.
https://www.washingtonpost.com/world/2023/01/26/russia-izhevsk-drone-mall/

27Jan23

Quantum-Systems sending Ukraine 105 more Vector ISR drones Bruce Crumley - Jan. 26th 2023

German drone manufacturer Quantum-Systems says it will soon be supplying Ukraine defense forces with over 100 more of its specialized data gathering Vector drones in a deal underwritten by Germany's government as part of its continued support of the nation against Russia's invasion.

Munich-based Quantum-Systems delivered 33 Vector drones for intelligence, surveillance, and reconnaissance (ISR) use by Ukraine defenders last August, and will now provide 105 more under a deal whose value was not revealed. In addition to being equipped with powerful electro-optical and infrared gimbaled sensors for data collection missions at day or night, the UAV boasts an extended flight time of 120 minutes.

As part of the accord, Quantum-Systems will also be providing Ukraine forces instruction and support for using its Vector craft through a dedicated center it will soon open in the country. That facility, the company adds, will also serve as a procurement and storage site for spare parts for maintenance and repair work.

Quantum-Systems said the move to secure additional Vector craft by Ukraine defense units was based in large part on the drone's valuable performance in battlefield operation, where it has become a critical asset in military ISR missions. The company says the UAV's rugged design has permitted it to withstand the harsh environments and extreme weather conditions it has been deployed in. https://dronedj.com/2023/01/26/quantum-systems-sending-ukraine-105-more-vector-isr-drones/

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27Jan23

SkyDrive Enters U.S. Market to Develop Practical Uses for eVTOLs and an AAM Ecosystem

Miriam McNabb January 26, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Today at the 2023 annual VFS eVTOL Symposium in Mesa, Arizona, leading Japanese eVTOL manufacturer SkyDrive announced its plans to enter the U.S. market and establish a base of operations in South Carolina, where it plans to develop an advanced air mobility ecosystem and implement practical uses for eVTOLs in the region.

The company was first invited to South Carolina last July by the Beaufort County Economic Development Corporation. SkyDrive has been focused on assessing practical use cases originating from several of South Carolina's major airports utilizing its SD-05 eVTOL aircraft. The company has decided to form business infrastructure within the state where it will work towards realizing an advanced air mobility ecosystem which will bring South Carolina to the forefront in its ability to support the commercial operations of eVTOL aircraft.

"The decision to make South Carolina our home base and our window into the U.S. market was an easy one considering that it is a significant player in both the commercial and military aviation industries, and it is home to more than 400 aerospace and aviation companies including Boeing and Lockheed Martin," said SkyDrive Founder and CEO Tomohiro Fukuzawa. https://dronelife.com/2023/01/26/skydrive-enters-u-s-market-with-plans-to-develop-practical-uses-for-evtols-and-an-aam-ecosystem/

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