UAS and SmallSat Weekly News

Contents

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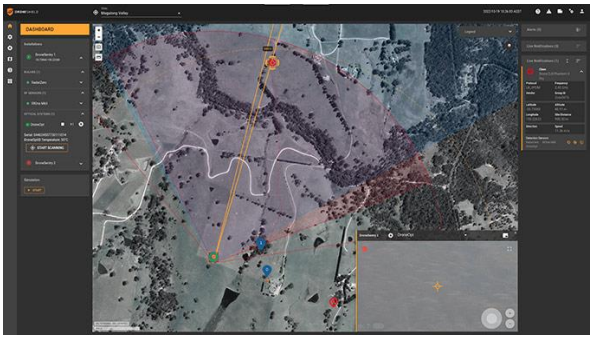
Integration of Remote ID and C-UAS: DroneShield and Pierce Aerospace Join Forces February 9, 2023 News



Global leader in Counter-UAS (C-UAS) technology, DroneShield, and Pierce Aerospace have entered a strategic partnership to integrate Pierce Aerospace's Flight Portal ID and Remote ID technologies into DroneShield's C-UAS and Command and Control systems. This integration aims to enhance situational awareness for DroneShield users, who can benefit from advanced UAS identification capabilities.

With a presence in over 100 countries and offices in the United States and Australia, DroneShield is highly regarded in the industry and has received a recommendation from the U.S. Department of Defense's Joint C-UAS Office. The company has a diverse customer base, including the U.S. Air Force, Australian Defence Force, and multiple European military agencies.

The integration of Pierce Aerospace's Flight Portal ID technology into DroneShield's DroneSentry-C2 system will provide end users with a comprehensive picture of their airspace, enabling the correlation and positive identification of UAS. This will enhance security operations and maintain safe flight operations for both crewed and uncrewed aircraft. The combined technology will have a wide range of applications, as Unmanned Traffic Management and C-UAS solutions continue to merge for various user segments, including civilian government, military, and private use cases. https://uasweekly.com/2023/02/09/integration-of-cutting-edge-remote-id-and-c-uas-technologies-droneshield-and-pierce-aerospace-join-forces/?utm_source=rss&utm_medium=rss&utm_campaign=integration-of-cutting-edge-remote-id-and-c-uas-technologies-droneshield-and-pierce-aerospace-join-forces&utm_term=2023-02-10

Mobilicom Joins U.S. Cybersecurity Working Group AUVSI to Set Industry Standards February 9, 2023 News

Mobilicom, a leader in providing solutions for drones and robotics, has taken a major step towards furthering the advancement of unmanned aerial systems by becoming a member of the Association

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for Uncrewed Vehicle Systems International (AUVSI) and the Fortress Information Security's Trusted Cyber Program. The company is joining forces with other industry leaders, including Boeing, Boston Dynamics, Northrup Grumman, and Raytheon, in the Cybersecurity Working Group, which is dedicated to developing enterprise cybersecurity standards for the unmanned systems and robotics sector.

The AUVSI Cybersecurity Working Group aims to release baseline industry standards as early as May 2023, which will provide a critical foundation for the deployment of unmanned vehicles in a secure and safe manner. Mobilicom, with its experience in the unmanned industry for defense applications, will bring valuable expertise to the working group. The company's CEO, Oren Elkayam, emphasized the importance of collaboration among industry leaders to establish strong cybersecurity standards for the unmanned and autonomous sectors.

Mobilicom's ICE Cybersecurity Suite is the world's first AI-based 360° software cybersecurity system for small-sized drones, robotics, and autonomous platforms. https://uasweekly.com/2023/02/09/mobilicom-joins-u-s-cybersecurity-working-group-auvsi-to-set-industry-standards/?utm_source=rss&utm_medium=rss&utm_campaign=mobilicom-joins-u-s-cybersecurity-working-group-auvsi-to-set-industry-standards&utm_term=2023-02-10

Drone Defence's AeroPing becomes first UK-made remote ID module to get FAA approval Bruce Crumley - Feb. 10th 2023

As the September 16 deadline nears for drones to be broadcasting required craft and flight data under Federal Aviation Administration (FAA) remote ID rules, UAV tech company Drone Defence says its AeroPing module has become the first UK-made transmitter to be approved for use by the US regulator.

Headquartered in Nottinghamshire, Drone Defence revealed its AeroPing remote ID device had gotten the green light after a long and taxing testing process by the FAA, making it the first UK module of its kind to gain authorization for use in the US. The company says the small, lightweight transponder can be easily attached to craft for broadcasting data required by rules already applicable to most manufacturer UAVs since late last year, and extended to older drones come September.

With the exception of vehicles under 250 grams flown exclusively for recreational purposes, the FAA remote ID rules applicable to all drones starting September 16 will require craft to

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broadcast the drone's identification (usually the serial number), location and altitude, velocity, control station position and elevation, time mark, and in some cases, emergency status.

CEO Richard Gill thinks his company is now well positioned to permit pilots to safely and legally fly their craft in both countries when regulations come into force.
https://dronedj.com/2023/02/10/drone-defences-aeroping-becomes-first-uk-made-remote-id-module-to-get-faa-approval/#more-90875

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Drone pilot videos bull moose's rare double-antler head-bang snap Bruce Crumley - Jan. 20th 2023

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 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

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Pierce Aerospace, DroneShield Partner on Integration of Remote ID and Counter Drone Tech

Miriam McNabb February 10, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Pierce Aerospace has partnered with Counter-UAS leader DroneShield to integrate Pierce Aerospace's Flight Portal ID Remote ID technologies into DroneShield's C-UAS and Command and Control systems, including DroneSentry-C2, granting end users enhanced situational awareness and advanced UAS identification capabilities.

Based in the United States and Australia and with a presence in more than 100 countries, DroneShield is a leader in C-UAS technology with a recent recommendation from the U.S. DOD's Joint C-sUAS Office. DroneShield has clients ranging from the United States Air Force to Australian Defence Force and several European defense agencies.

"We've worked with DroneShield for a few years at private and DOD-sponsored C-UAS integration events," said Pierce Aerospace CEO Aaron Pierce. "DroneShield has been a consistent advocate for our capabilities, and their technologies offer a great platform for integration. Their C-UAS systems are proven, and I'm excited to see end users work with an integrated solutions package that pairs radio frequency based detect and defeat, innovative command and control, and our Remote ID and Combat ID capabilities."
https://dronelife.com/2023/02/10/pierce-aerospace-droneshield-partner-on-integration-of-remote-id-and-counter-drone-tech/

The Latest DJI Mini: Mini 2 SE

Miriam McNabb February 10, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Today, civilian drones and creative camera technology leader DJI announced the DJI Mini 2 SE, an ultra-light, palm-sized foldable camera drone suitable for both beginners and experienced drone pilots.

Weighing under 249 grams, the regulation-friendly Mini 2 SE is exempt from drone regulations in various regions. Its 1/2.3-inch CMOS camera

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sensor takes 12MP photos and films video at 2.7k and enables 4X digital zoom for seamless transitions between shots at varying distances.

The Mini 2 SE is the latest addition to the DJI Mini Series, which grants several smart features that make operation easier. Mini 2 SE features a maximum range of 10 km of HD video transmission, with a maximum flight time of 31 minutes. In addition to the smart features, the Mini 2 SE has intelligent features like QuickShots and Panorama, allowing for more creative shots. The advanced gimbal enables a 3-axis mechanical stabilization system for consistently smooth imagery. The Mini 2 SE also features one-tap takeoff and landing, stable hovering, and a return to home feature. With level 5 wind resistance, the aircraft can hover steadily and keep images stable at a wind speed of 10.7 m/s.

The DJI Mini 2 SE starts at $369, with a DJI Mini 2 SE Fly More Combo available for $519. Both will be available for purchase starting March 22, 2023 at the DJI Store and authorized retailers. https://dronelife.com/2023/02/10/the-latest-dji-mini-mini-2-se/

GRAB FREE TICKETS TO DJI'S KEYNOTE AT NESTGEN 2023 — BUT HURRY February 8, 2023 Sally French

The NestGen 2023 virtual summit is set for Thursday, Feb. 23. And if you reserve your tickets this week, you can tune in for free.

This year's NestGen 2023 virtual summit is shaping up to be one worth participating in for one big reason: DJI is both the title sponsor and the keynote presenter. During DJI's keynote, the company is set to reveal details about its vision for the next generation of autonomous drone operations, the future of visual data acquisition and its role in driving the global adoption of drone docks.

DJI in March 2022 released its DJI Dock, which is a 90 kg autonomous docking and recharging station. It's an epic, smart box that can charge the DJI M30 series of drones, and then automatically send the drone off into the skies, as programmed through FlightHub 2. The Dock has a climate-controlled interior, is rated at IP55 and the core internal components are IP67, and it's waterproof and dustproof even when it is open.

Tickets for the virtual summit are $25, but if you register now, you can tune in for free. Between now and Feb. 15, 2023 (register here). The one-day event will also explore BVLOS

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operations, regulatory landscape, drone delivery, and various applications such as construction, security, utility inspections, energy and power distribution.

There are more than 45 expert speakers on the topic covering about 30 sessions total. Other speakers include Jackie Dujmovic, CEO of Hover UAV; Karin Hollerbach, Managing Director at Aerodyne ASG GmbH; Dawn Zoldi, Founder of P3 Tech Consulting, co-host of the Full Crew podcast and organizer of The 2023 Law-Tech Connect Workshop; and Philip Binks, Head of ATM at Altitude Angel. All sessions will be streamed live between 09:30 a.m. and 8:30 p.m. UTC (that's 4:30 a.m. to 3:30 p.m. ET). Learn even more about NestGen, including the full agenda and speaker lineup, here. https://www.thedronegirl.com/2023/02/13/dji-keynote-nestgen-2023-but-hurry/

Lunar cubesats encounter technical problems Jeff Foust February 10, 2023

WASHINGTON — One NASA-funded lunar cubesat has recovered from a communications glitch while engineers are developing backup plans for another cubesat that has suffered a propulsion problem.

NASA announced Feb. 8 that controllers had restored the ability to send commands to the Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment (CAPSTONE) cubesat. That cubesat, operated by Colorado-based Advanced Space for NASA, has been orbiting the moon since November in a near-rectilinear halo orbit, the same orbit planned for the lunar Gateway.

The spacecraft had been unable to receive commands since Jan. 26, although it was otherwise functioning and transmitting telemetry back to Earth. The onboard computer rebooted Feb. 6 when triggered by a command-loss timer, restoring two-way communications.

Other than the communications issue, CAPSTONE has been working well since arriving at the moon, completing more than 12 orbits. The spacecraft has only had to perform maneuvers twice to maintain its orbit, compared to expectations that such maneuvers would be required every orbit. https://spacenews.com/lunar-cubesats-encounter-technical-problems/

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

The autonomous UAV has a 7 ft wingspan and is designed to provide aerial intelligence for a variety of different applications.

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.

The company attended 14 trade shows in 2022 and was asked to give keynote presentations at 4 major events. The defense community has also taken notice. The company recently performed a test demonstration for the U.S. Special Forces and has received written support from the U.S. Air Force. 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-74c57f13a4-119746781&mc_cid=74c57f13a4&mc_eid=d16a5d99bc

Pentagon's DARPA seeks massive drone swarms to swamp enemy defense bubbles Bruce Crumley - Feb. 13th 2023

If the war in Ukraine has taught the world anything, it's that UAVs have proven their utility in waging war today and demonstrated their promise for larger deployment in future conflicts. And that evolution doubtless explains why the Pentagon's Defense Advanced Research Projects

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Agency (DARPA) is now endeavoring to create super swarms of drones capable of overwhelming enemy defense systems, and attacking targets they identify once past those.

DARPA last month updated an announcement initially published late last year, calling for bids from companies to develop large swarms of drones to perform a variety of military missions, including swamping complex, tech-based defense systems – then autonomously seeking out designated targets with onboard munitions. While military operations using multiple UAVs have thus far limited the number of craft involved to single or double digits, the DARPA program seeks to deploy up to 1,000 drones – possibly more – in so-called swarm-of-swarms.

The idea behind the DARPA program is to deploy huge numbers of drones in swarms whose sheer size, reinforced with specialized onboard jamming tech, can scramble, disrupt, and simply burst what are known as Anti-Access/Area Denial defense bubbles. https://dronedj.com/2023/02/13/pentagons-darpa-seeks-massive-drone-swarms-to-swamp-enemy-defense-bubbles/

UK healthcare units trial drone transport of medicines, patient samples Bruce Crumley - Feb. 13th 2023

A new series of trials is set to begin in the UK today using drones to transport patient samples, medicines, and other materials between healthcare facilities.

The Northumbria Healthcare NHS Foundation Trust, which is part of the UK's National Health Service, is kicking off the drone trials that were initially announced seven months ago, and which participating healthcare centers and trial operators have been organizing since. Also involved in the program is the UAV services unit of Skyports, and Apian, a startup focused on using aerial tech to improve medical transportation that's funding the project.

The tests will fly drones carrying up to 3 kg of healthcare payloads up to 110 km/h over a designated corridor in Northumbria, on the northeast coast of England. Starting at six sorties per day before gradually increasing the rate to 15, the program will speed chemotherapy medication from the Wansbeck General Hospital in Ashington up to infirmaries in Alnwick and Berwick farther north, then bring pathology samples to Wansbeck on the return flights.

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The UK drone delivery trial kicks off today, and will run through May 12, when feedback from participating healthcare centers, program operators, and members of surrounding communities will be studied to analyze the prospects of launching permanent aerial services.
https://dronedj.com/2023/02/13/uk-healthcare-units-trial-drone-transport-of-medicines-patient-samples/

FAA approves Drone Defence Services' Aeroping RemoteID module February 13, 2023

The Federal Aviation Administration (FAA) has approved the drone RemoteID module AeroPing developed by Drone Defence Services. AeroPing is a small and lightweight RemoteID transponder, providing all drone pilots the ability to present their drone's location and flight purpose, in real-time. According to Drone Defence, the AeroPing RemoteID module is the first of its kind in the UK, to have obtained FAA approval.

The FAA put AeroPing through a rigorous application and testing process, with the RemoteID Declaration of Compliance being awarded at the end of 2022, says the company. Richard Gill, CEO and Founder of Drone Defence, said, "The FAA approval demonstrates the module's efficiency and capability of communicating a drone's location and flight purpose."

AeroPing is designed to be straightforward and easy to set up, with a real-time data feed into AeroTracker or any other DRI receiver app of choice.
https://www.legendaryleadersininnovation.com/public/topics/23/UAS

UTM market "will rise from $263 million in 2023 to $827 million in 2027" – new Unmanned Airspace report February 12, 2023 Philip Butterworth-Hayes

The global UAS traffic management (UTM) market during 2023-2027 will be worth $2.6 billion, with annual expenditure rising from $263 million in 2023 to $827 million in 2027, according to the latest edition of *Unmanned Airspace's* ***The Market for UAV Traffic Management Services – 2023-2027.*** To download a sample of the report, please click here

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Just a handful of national and local UTM development programs were announced during 2022. The market has been pegged back by a combination of COVID pandemic management/recovery – which has meant air navigation service providers have been focused on providing essential air traffic management services rather than investing in future UTM programs – and uncertainties over the granular details of UTM regulation.

At the start of 2023 these obstacles were disappearing with the return to more stable traffic and income levels and the arrival of new regulations – in particular, EASA's December 2022 publication of its first set of Acceptable Means of Compliance and Guidance Material (AMC/GM) to support the harmonized, safe and efficient implementation of U-space across the European Union. https://www.unmannedairspace.info/news-first/utm-market-will-accelerate-from-usd263-million-in-2023-to-usd827-million-in-2027/

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GAO Report on Drone Integration Urges FAA to Develop Comprehensive Strategy

Miriam McNabb: February 13, 2023

The GAO report on Drone Integration concluded with four recommendations:

1. "The Administrator of FAA should develop a drone integration strategy that includes all seven elements of a comprehensive strategy";
2. "The Administrator of FAA should evaluate its current documentation to identify options to more clearly communicate how applicants can satisfy drone operational request requirements and communicate FAA's internal process for reviewing and approving operational requests";
3. "The Administrator of FAA should develop and document a formal lessons-learned process for its drone integration activities that includes all six key practices for a lessons-learned process";
4. "The Administrator of FAA should implement the formal lessons learned process it develops for its ongoing drone integration activities, including Part 107 waiver reviews and the BEYOND program."

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Primarily, the report calls for streamlining and clarifying the processes for receiving authorization for advanced operations, stating that "more than half of 15 industry stakeholders told GAO that FAA has not clearly communicated the requirements it looks for when reviewing and approving advanced operations." https://dronelife.com/2023/02/13/gao-report-on-drone-integration-urges-faa-to-develop-comprehensive-strategy/

20 Drones, 1 Pilot: Matternet's New Waiver Could Change the Economics of Drone Delivery

Miriam McNab: February 13, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Last week, leading drone delivery system developer Matternet was granted an FAA waiver that will enable the company to carry out operations that simultaneously deploy a total of 20 aircraft under the control of only a single remote pilot.

Valid only at Matternet's Pittsburg, California test site, the 20:1 waiver allows the aircraft to fly beyond the sight of the remote pilot and the visual observer. The visual observer's presence is required to guarantee that the airspace is clear. This new waiver follows a series of other accomplishments by Matternet, including its recent FAA Type and Production certifications.

The Matternet 20:1 waiver serves as a major milestone in the process of advancing not only Matternet's level of automation, but also the economics of drone delivery. While Matternet's recent FAA certifications have been hardware focused, this new waiver emphasizes the company's focus on its software and autonomous capabilities.
https://dronelife.com/2023/02/13/20-drones-1-pilot-matternets-new-waiver-could-change-the-economics-of-drone-delivery/

Rulemaking Begins for UAS Wireless Communications

Gordon Gilbert February 13, 2023

The U.S. Federal Communications Commission (FCC) has published a rule to enable wireless communications for unmanned aircraft systems (UAS) in the 5,030- to 5,091-MHz band. It now seeks comment on whether measures are necessary to facilitate such communication on flexible-use wireless networks. Comments are due by March 9.

Currently, the UAS industry primarily operates under unlicensed and low-power wireless communications rules or experimental licenses. "It is past time that we assess the availability of

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wireless communications resources for the increasingly important remote-piloted aircraft activity we rely on today," said FCC Chair Jessica Rosenworcel. "The FCC must ensure that our spectrum rules meet the current and future needs of evolving technologies such as unmanned aircraft systems."

The proposal also seeks comments on whether current FCC rules for flexible-use spectrum bands are sufficient to ensure the coexistence of terrestrial mobile operations and UAS use or whether changes to these rules are necessary to prevent or mitigate interference and performance concerns. Also, the FCC proposes a process for UAS operators to obtain a license in the aeronautical VHF band to communicate with ATC and other aircraft.
https://www.ainonline.com/aviation-news/business-aviation/2023-02-13/rulemaking-begins-uas-wireless-communications

Chinese Balloon and Mystery Objects Raise Question of Who Controls 'Near Space'

Doug Cameron Feb. 14, 2023

Nations govern airspace up to 60,000 feet, but above that no international agreement exists

The U.S. says the suspected Chinese spy balloon shot down Feb. 4 violated sovereign U.S. airspace. But when it crossed the U.S. at altitudes as high as 65,000 feet, the balloon floated into the murky zone aloft where no international consensus exists about which, if any, nation wields control.

U.S. allegations that China has operated a fleet of suspected spy balloons over 40 countries have renewed a debate over the governance of airspace above the altitudes traversed by commercial aircraft. And the balloon and other objects of unknown or undisclosed nature and purpose shot down from lower heights have focused attention on a nation's right to eliminate perceived threats at any height.

Countries with advanced space programs, including the U.S. and China, have blocked efforts to extend nations' sovereignty to the edge of space, according to meeting minutes of the United Nations body examining the issue. They have opted for the freedom to operate their own craft without restriction.

The issue is back on the agenda for next month's meeting of the U.N. Committee on the Peaceful Uses of Outer Space, which is helping create regulatory frameworks.

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https://www.wsj.com/articles/chinese-balloon-and-mystery-objects-raise-question-of-who-controls-near-space-8645b9aa

Ondas Holdings' Airobotics Announces $3.5 Million to Deploy Drones in Abu Dhabi UAE

WALTHAM, MA and PETAH TIKVAH, ISRAEL / ACCESSWIRE / February 7, 2023 / Ondas Holdings Inc. (NASDAQ:ONDS) a leading provider of private industrial wireless networks and commercial drone and automated data solutions, announced today that its wholly-owned subsidiary Airobotics, Ltd. ("Airobotics") and Sky Go Transport of Goods L.L.C ("SkyGo"), a UAE-based company with commercial license to provide unmanned aerial transport of goods and services across the city of Abu Dhabi, have signed a Term Sheet for Joint Venture (the "SkyGo JV") to provide aerial drone services to the city of Abu Dhabi. As a part of the partnership, Airobotics, subject to the finalization of required formalities, has received an initial multi-system purchase order for $3.5 million from SkyGo. The purchase order is conditioned by the completion of proof of concept.

The Airobotics Optimus Urban Drone Infrastructure is expected to be deployed throughout Abu Dhabi to conduct various types of missions, including in providing public services in a sustainable and scalable manner. The Urban Drone Infrastructure, which is designed to operate as a network of smart drones, will be used in various cases such as aerial priority delivery and monitoring missions to increase the safety and quality of industrial operations in facilities such as ports, railways, highways etc. https://ir.ondas.com/press-releases/detail/110/ondas-holdings-airobotics-announces-3-5-million-order-and

MSU awarded $18.7M contract for UAS research for U.S. Homeland Security

February 14, 2023 News

Mississippi State University (MSU) has secured a five-year, $18.7 million contract with the US Department of Homeland Security (DHS) Science and Technology Directorate to lead a significant research, testing and evaluation project on unmanned aircraft systems (UAS). The award marks MSU's second time leading the project on behalf of the DHS, and is expected to enable MSU to continue scouting, evaluating, and testing cutting-edge UAS technologies while

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developing a cost-effective prototype UAS tailored specifically to DHS needs. Additionally, the contract requires MSU to conduct cybersecurity vulnerability assessments for UAS aircraft.

The Raspet Flight Research Laboratory, an MSU-affiliated research center, will spearhead the new project. With the help of MSU's resources in high-performance computing, cybersecurity, advanced materials and remote sensing, the team will conduct research to enhance the DHS's UAS capabilities.

MSU has a rich history of innovation in the UAS field, including its role as lead for the FAA's UAS Center of Excellence for UAS Research, or ASSURE, and Raspet's designation as the FAA's UAS Safety Research Facility in 2020. The university was previously awarded the contract to lead Homeland Security's Common UAS Test Site in 2017, an initiative that allows MSU to provide UAS testing, evaluation, and full-scale exercise capabilities for more than two dozen simulated security threat scenarios. https://uasweekly.com/2023/02/14/uas-research-and-development-unmanned-aerial-systems-dhs-science-and-technology-directorate/?utm_source=rss&utm_medium=rss&utm_campaign=uas-research-and-development-unmanned-aerial-systems-dhs-science-and-technology-directorate&utm_term=2023-02-14

Partnership to Develop sUAS for NATO Special Forces Project Phoebe Grinter / 09 Feb 2023

Rheinmetall subsidiary Rheinmetall Technical Publications GmbH and AeroVironment have partnered to participate in a NATO procurement program for a small UAS intended for special operations and infantry applications.

The system is required to have all-weather functionality, quick deployment, hand launch ability, a maximum weight of 10kg, and a 30km operating range.

AeroVironment's expertise in the design, development and production of unmanned aerial systems is evidenced in its Puma 3 AE UAS, which is in operation with armed forces around the world. AeroVironment believes Puma 3 AE's modular concept offers the optimum platform for a small UAS for special forces.

A certified aviation technology company, Rheinmetall Technical Publications is a systems house for tactical drones. Benefiting from decades of experience, Rheinmetall believes it has the necessary expertise to introduce, support, and adapt drone systems to meet customer specifications. https://www.unmannedsystemstechnology.com/2023/02/partnership-to-develop-suas-

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for-nato-special-forces-project/?utm_source=UST+eBrief&utm_campaign=36007e7caa-ust-ebrief_2023-feb-14&utm_medium=email&utm_term=0_6fc3c01e8d-36007e7caa-119747501&mc_cid=36007e7caa&mc_eid=0d642a9d48

HevenDrones unveils its first of three hydrogen-powered drones planned for 2023 Bruce Crumley - Feb. 14th 2023

Israel-based HevenDrones unveiled the H2D55 as the first of three drones using hydrogen technology that it plans to release over the course of 2023. The initial UAV uses the deeper power reserves of hydrogen compared to lithium batteries to enable flights of up to 100 minutes while transporting maximum payloads of 7 kilos. The company says the models it's preparing for release over the next nine months will increase both airtime and hauling capacities.

HevenDrones says that in addition to the hydrogen tech of the H2D55 offering users more power, the longer life of those cells over lithium batteries will also lower costs of deploying the drone.

For starters, less frequent swapping of spent batteries means reduced interruptions in flights, and longer air time. The longer life cycle of hydrogen cells, meanwhile, will cut replacement costs compared to traditional power sources – and do the planet a favor by eliminating the environmental damage inflicted by mining for materials used in lithium batteries.
https://dronedj.com/2023/02/14/hevendrones-unveils-its-first-of-three-hydrogen-powered-drones-planned-for-2023/#more-90925

Dubai sets 2026 goal for eVTOL air taxi launch and praises Joby and Skyports Infrastructure Bruce Crumley - Feb. 14th 2023

Dubai has renewed a previous pledge to be one of the world's early deployers of electric vertical takeoff and landing aircraft (eVTOL), this time setting a 2026 launch objective for air taxi services in the city-state and commercial capital of the United Arab Emirates (UAE).

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Government leaders voiced their enthusiasm about eVTOL passenger transportation at Dubai's ongoing annual World Government Summit, where Sheikh Mohammed bin Rashid Al Maktoum set 2026 as the intended target for air taxi services.

Accompanying Al Maktoum's comments was a tweeted video by Dubai's Roads and Transport Authority touting its embrace of eVTOL tech and pledging the city would be the world's first to develop a full network of vertiports to facilitate air taxi activities. https://dronedj.com/2023/02/14/dubai-sets-2026-goal-for-evtol-air-taxi-launch-and-praises-joby-and-skyports-infrastructure/

15Feb23

Beta and Blade Prove eVTOL Viability with Test at KHPN Mark Huber February 14, 2023

This morning, Beta Technologies made a test flight of its six-seat, all-electric Alia-250 EVA eVTOL at the Westchester County Airport in White Plains, New York (KHPN). The flight, which was performed in cooperation with Blade Air Mobility, was the first of an eVTOL aircraft in the New York metropolitan area. The Alia-250 flew alongside a conventional helicopter before pulling away for a second pass above the airport to highlight the eVTOL's comparative quietness. Beta claims its noise profile is one-tenth that of a conventional helicopter.

In April 2021, Blade agreed to facilitate the purchase of up to 20 passenger-configured Alia-250s by its network of operators. Blade intends to deploy these aircraft on routes between its network of dedicated terminals in the U.S. Beta has also agreed to provide and install charging infrastructure at certain key locations.

"This is a historic moment for Blade, New York, and the urban air mobility industry," said Blade CEO Rob Wiesenthal. "This demonstration is a big milestone in our transition from helicopters to electric vertical aircraft, and we are pleased that our partners at Beta have designed the right aircraft with the requisite range, capacity, and noise profile for use in our key markets, including our home base of New York City." https://www.ainonline.com/aviation-news/business-aviation/2023-02-14/beta-and-blade-prove-evtol-viability-test-khpn

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2023 DRONE DELIVERIES: WILL COMPANIES MEET EXPECTATIONS WITH AMAZON WOES? February 10, 2023 Sally French

Amazon made headlines in 2013 when then-Chief Executive Jeff Bezos announced on 60 Minutes that it would deliver packages using drones. Ten years later, and Amazon's delivery service is extremely limited.

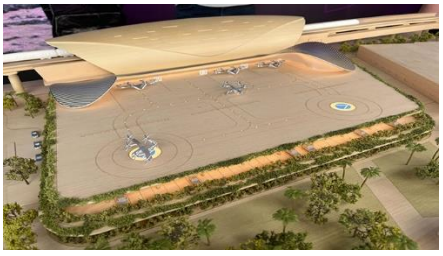
That review is in reference to the deliveries happening at Amazon delivery sites in College Station, Texas and Lockeford, California. That's because, at the end of 2022, Amazon announced it had made the first deliveries from those two new sites, which its leadership refers to as "careful first steps that we will turn into giant leaps for (Amazon) customers over the next number of years."

Alas, "careful first steps" might be the understatement of the year. According to reports released in February 2023 from both *The Information* and *Business Insider*, Amazon had served fewer than 10 households in its first month or so after the announcement. Meanwhile, it also laid off more than half the employees at those locations.

An Amazon spokesperson said that the layoffs would not impact its plans to continue drone deliveries in Lockeford and College Station, nor would it suppress expansion efforts.
https://www.thedronegirl.com/2023/02/15/2023-drone-deliveries-amazon/

Dubai approves Skyports Infrastructure's vertiport designs for urban air mobility

February 14, 2023 News



Skyports Infrastructure has received approval for its vertiport design from His Highness Sheikh Mohammed bin Rashid Al Maktoum at the World Government Summit 2023 in Dubai. The vertiport network is aimed to develop a comprehensive infrastructure network for advanced air mobility in Dubai, and the plans were jointly presented by the Roads and Transport Authority, Skyports Infrastructure, and Joby Aviation at a closed presentation ahead of the summit.

The vision includes plans for four vertiport sites near popular and populous areas, including Dubai International Airport, Palm Jumeirah, Dubai Downtown, and Dubai Marina. These sites

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aim to provide high-speed and zero-emissions connectivity while integrating with existing transportation options, including the Dubai Metro network and Dubai International Airport.

An architectural model of the vertiport near Dubai International Airport was presented to the special delegation by RTA Chairman, His Excellency Mattar Al Tayer. Joby Aviation, a pioneer of electric vertical take-off and landing (eVTOL) aircraft, also participated in the summit. The collaboration between Skyports Infrastructure and the RTA aims to formulate a comprehensive vertiport network in Dubai for launch by 2026. https://uasweekly.com/2023/02/14/skyports-infrastructure-vertiport-advanced-air-mobility-dubai/?utm_source=rss&utm_medium=rss&utm_campaign=skyports-infrastructure-vertiport-advanced-air-mobility-dubai&utm_term=2023-02-15

Draganfly delivers situational awareness drones to Ukraine emergency responders Bruce Crumley - Feb. 15th 2023

Canadian UAV hardware and software company Draganfly has reinforced its emphatic support of Ukraine in its battle against invading Russian forces with the delivery of the first of three Situational Assessment Drones for the nation's emergency and rescue units.

Draganfly announced the handoff of its specialized drone to the DSNS Emergency Services Department in Kyiv, noting that two more craft will be supplied to the organization's divisions in other parts of Ukraine later this month. The company said the craft will allow responders to perform situational awareness information-gathering, infrastructure assessments, and assistance in search and rescue operations throughout the country.

According to Draganfly, its Situational Assessment Drone is an automated craft whose RGB and multi-spectral imaging sensors capture data to instantly provide operators maps of emergency situations for immediate and future use.

The vertical takeoff and landing drones are lightweight, easy to deploy, and offer multiple flight and data capture options. https://dronedj.com/2023/02/15/draganfly-delivers-situational-awareness-drones-to-ukraine-emergency-responders/

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17Feb23

Joby Aviation Completes the Second Stage of the FAA Type Certification Process

Jessica Reed | February 16, 2023

eVTOL developer Joby Aviation has successfully completed the second stage in the type certification process, according to an announcement from the company last week. The Federal Aviation Administration requires companies to progress through five stages before receiving type certification for commercial passenger use of their aircraft. The first stage is defining the Certification Basis, while the second stage involves identifying the methods of demonstrating its Means of Compliance.

Joby claims that it is the first eVTOL (electric vertical take-off and landing) developer to complete the second stage of the process. It was the first of the eVTOL companies to complete the first stage—its Certification Basis is published in the Federal Register. The team is working towards a launch date of 2025 for commercial passenger service.
https://www.aviationtoday.com/2023/02/16/joby-means-of-compliance/?oly_enc_id=7021F0632090D7B

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