



## UAS and SmallSat Weekly News

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### **AutoFlight Announces Major Commercial Deal with EVFLY to Supply 205 eVTOL Aircraft** March 16, 2023 News



AutoFlight, a global pioneer in eVTOL technology, has announced a contract with **Middle Eastern** company EVFLY for the purchase of 205 Prosperity I and Prosperity Cargo Aircraft. EVFLY will operate the first 10 AutoFlight Cargo aircraft in the region, initially in the United Arab Emirates and Saudi Arabia, with further deployments planned in Asia and Africa. This

partnership marks a significant milestone in the nascent eVTOL industry and demonstrates AutoFlight's commitment to the Middle East region.

The announcement follows AutoFlight's recent **record-breaking 250km all-electric flight** on a single charge of the aircraft's lithium-ion batteries. The flight was conducted at AutoFlight's eVTOL testing facility and featured 20 circuits on a predefined flight track. The plane was remotely piloted from the ground by AutoFlight's Flight Test team, and the distance flown was recorded and verified on ForeFlight, an independent system widely used in the aviation sector. [https://uasweekly.com/2023/03/16/autoflight-announces-a-major-commercial-deal-with-evfly-to-supply-205-evtol-aircraft/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=autoflight-announces-a-major-commercial-deal-with-evfly-to-supply-205-evtol-aircraft&utm\\_term=2023-03-17](https://uasweekly.com/2023/03/16/autoflight-announces-a-major-commercial-deal-with-evfly-to-supply-205-evtol-aircraft/?utm_source=rss&utm_medium=rss&utm_campaign=autoflight-announces-a-major-commercial-deal-with-evfly-to-supply-205-evtol-aircraft&utm_term=2023-03-17)

### **Doroni Aerospace Achieves Milestone eVTOL Flight Tests and Secures \$3.5M+ Investment** March 16, 2023 News



**Miami-based** Doroni Aerospace, Inc. has successfully concluded its second equity crowdfunding campaign on StartEngine.com, raising over \$2.4 million from 1,042 investors. With this latest round, Doroni Aerospace has now raised over \$3.5 million from a total of 1,956 investors for the development of its two-seater electric vertical takeoff and landing (eVTOL) aircraft, the Doroni H1.

The company recently released a video of the full-scale Doroni eVTOL prototype (known as the H1P1) completing an untethered hover test flight at its 13,000 sq. ft. R&D facility in Pompano Beach. The company confirmed that it had conducted a total of 23 test flights with the aircraft. Yaakov Werdiger, Doroni's Business Development Manager, stated in an interview with



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FutureFlight that the current prototype closely resembles the final product, with some minor changes being made to the wings, ducts, and frame design to enhance safety and aerodynamics. Doroni Aerospace is now looking forward to a Series A raise to support its next phase of growth. [https://uasweekly.com/2023/03/16/doroni-aerospace-achieves-milestone-evtol-flight-tests-and-secures-3-5m-investment-from-investors/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=doroni-aerospace-achieves-milestone-evtol-flight-tests-and-secures-3-5m-investment-from-investors&utm\\_term=2023-03-17](https://uasweekly.com/2023/03/16/doroni-aerospace-achieves-milestone-evtol-flight-tests-and-secures-3-5m-investment-from-investors/?utm_source=rss&utm_medium=rss&utm_campaign=doroni-aerospace-achieves-milestone-evtol-flight-tests-and-secures-3-5m-investment-from-investors&utm_term=2023-03-17)

### UAVOS Utilizes Borey Fixed-Wing Drone for Accurate Soil Moisture Mapping

March 16, 2023 Mapping and Surveying | News



UAVOS, a developer and manufacturer of advanced unmanned systems for security and commercial applications, has successfully conducted a drone-based inspection in the agriculture sector to measure soil moisture content. The use of UAVOS's customized software and digital data has enabled innovative analysis for water management in agriculture and land management. The inspection technology offered by UAVOS provides timely and accurate insights into soil drainage and moisture content dynamics.

UAVOS utilizes its fixed-wing Borey uncrewed aerial system (UAS), featuring a multispectral sensor that offers spatial and temporal resolution. The Borey UAS can measure soil moisture over an area of up to **2,220 acres (9 km<sup>2</sup>) per flight** at low altitude missions of 150 m above ground level. This altitude is necessary for the sensor to accurately map soil moisture with up to 10 cm/pixel resolution.

The multispectral camera provides data for the entire scanned area, not just representative samples. After the drone inspection, UAVOS's mapping professionals provide clients with a comprehensive report, including high-definition images and video, orthomosaic images for GIS import, digital surface model, digital terrain model, and 3D images for future crop plantation planning and monitoring. [https://uasweekly.com/2023/03/16/uavos-utilizes-borey-fixed-wing-drone-for-accurate-soil-moisture-mapping/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=uavos-utilizes-borey-fixed-wing-drone-for-accurate-soil-moisture-mapping&utm\\_term=2023-03-17](https://uasweekly.com/2023/03/16/uavos-utilizes-borey-fixed-wing-drone-for-accurate-soil-moisture-mapping/?utm_source=rss&utm_medium=rss&utm_campaign=uavos-utilizes-borey-fixed-wing-drone-for-accurate-soil-moisture-mapping&utm_term=2023-03-17)



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### Verity's warehouse inventory drones get millions from shipping client Maersk's

**VC arm** Bruce Crumley - Mar. 17th 2023



Swiss [drone company Verity](#), which specializes in UAV operation in automated warehouse management and inventory services, has raised **30 million Swiss francs (\$32 million)** in a Series B fundraising round largely underwritten by A.P. Moller Holding – the parent company and venture capital

arm of shipping giant Maersk, [which began using the aerial logistics management solution a few months ago](#).

The cash infusion by Maersk's VC arm will assist Verity's plans to scale its [automated drone](#) inventory business beyond the 30 sites in 13 countries it now provides the service.

The [automated UAV fleets](#) are typically operated at night or on weekends when warehouse traffic is reduced. They rotate between [scanning barcodes](#) – which are fed into the client company's digital accounting system to detect omissions or repetitions – and returning to docks for recharging stints. <https://dronedj.com/2023/03/17/veritys-warehouse-inventory-drones-get-millions-from-shipping-client-maersks-vc-arm/#more-91786>

### Draganfly expands its drone production capacity to satisfy growing demand

Bruce Crumley - Mar. 17th 2023



Canadian UAV hardware and software company [Draganfly](#) had a busy and productive 2022, and is now building on continued business momentum in the first three months of this year with the announcement it is expanding its [drone](#) production capacities to keep pace with surging demand.

Saskatoon-based Draganfly [said this week](#) that it was ready to begin using additional drone production facilities added to its plant in Burnaby, British Columbia. The company had previously decided to extend the operation's output capacities in response to additional business generated by deals concluded in 2021 and 2022. Its continued growth in the initial months of this year indicates that expansion decision was prescient indeed.

Draganfly has concluded a rash of [partnerships with sensor](#) and various software companies to expand the range of capabilities and utilities its drones can provide. The company has also been



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busy widening its UAV product line, [rolling out three different craft](#) in 2022 with the the [Draganfly Heavy Lift Drone](#), Commander 3 XL Drone, and Long Range LiDAR system. <https://dronedj.com/2023/03/17/draganfly-expands-its-drone-production-capacity-to-satisfy-growing-demand/>

### **Skydio drones, Qii.AI to inspect ships for Royal Canadian Navy** Ishveena Singh - Mar. 17th 2023



Drone manufacturer Skydio says its technology partner Qii.AI has won a contract to conduct automated ship inspections and detect corrosion for the Royal Canadian Navy. While the Qii.AI platform will provide AI-based data analytics, the visual data gathering part of the Navy's ship inspection program will be carried out using [Skydio drones](#).

Qii.AI is a Toronto-based software company that uses computer vision and machine learning to detect and quantify issues such as corrosion, cracking, and delamination in steel and concrete infrastructure assets. It recently [joined forces with Skydio](#) to make the Skydio 3D Scan drone mapping software more efficient for remote digital inspections.

Last year, the duo demonstrated their collective power to the Canadian Department of National Defense, wherein Skydio drones captured data from two naval ships and created their digital twins using 3D Scan software. These models were then imported into the Qii system for auto-detection, classification, and **quantification of visible corrosion**, using Skydio Cloud API.

Based on the results from that demo, Canada's Naval Engineering Test Establishment (NETE) has now entered into a license and AI customization agreement with Qii to allow ship inspections to be completed in a fraction of the time taken by traditional methods.

<https://dronedj.com/2023/03/17/drone-inspection-royal-canadian-navy/#more-91766>

### **DDC Secures Investment from Downsview Aerospace Innovation & Research Green Fund** March 16, 2023 News



Drone Delivery Canada Corp. (DDC) is delighted to announce that it has been awarded up to \$75,000 in funding from the Downsview Aerospace Innovation and Research (DAIR) Green Fund to support its environmentally friendly drone delivery solution. The company was chosen as **one of eight recipients** of





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this funding in 2022, following a rigorous application process.

The DAIR Green Fund, backed by the Federal Economic Development Agency for Southern Ontario, aims to bolster collaborative projects that showcase the future of aerospace through sustainable and green aviation technologies. The funding will be allocated to cover some of the operating costs for DDC's Care by Air project, as well as the expenses related to regulatory approvals required for progressing towards beyond visual line of sight operations. BVLOS will enable the operation of more intricate routes while reducing the need for human resources, allowing DDC to expand its projects and routes. [https://uasweekly.com/2023/03/16/ddc-secures-investment-from-downsview-aerospace-innovation-research-green-fund/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=ddc-secures-investment-from-downsview-aerospace-innovation-research-green-fund&utm\\_term=2023-03-17](https://uasweekly.com/2023/03/16/ddc-secures-investment-from-downsview-aerospace-innovation-research-green-fund/?utm_source=rss&utm_medium=rss&utm_campaign=ddc-secures-investment-from-downsview-aerospace-innovation-research-green-fund&utm_term=2023-03-17)

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### **Pie from the sky? Walmart drone delivery in Hampton Roads with help of DroneUp** Trevor Metcalfe The Virginian-Pilot Mar 18, 2023



*A DroneUp craft hovers before landing in the parking lot at the Walmart on Lynnhaven Parkway in Virginia Beach after finishing a test delivery to the other side of the building.*

VIRGINIA BEACH — Customers at the Walmart on Lynnhaven Parkway in Virginia Beach can be among the first in the country to receive a drone delivery, courtesy of **DroneUp**, a Virginia Beach company. For \$3.99, customers within a 0.8-mile radius of the store can request a delivery.

On a brisk Thursday morning in Virginia Beach, about six DroneUp employees huddled around a tented staging area in the Walmart parking lot for a test flight. The crew included two pilots, a visual observer who follows the drone to its destination and a few more employees. When a customer orders a delivery, the workers get a notification through an iPhone app. They go into Walmart and select the items — a package of Oreos or a half-gallon of milk — then pack up the goods.



Drones from DroneUp in Virginia Beach are ready to deliver orders of 4 pounds or less from the Walmart on Lynnhaven Parkway. Right now, the drones can only carry items that fit in a box about the size



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of a large fried chicken takeout container. The drones can carry up to 10 pounds, but for now, the flights are limited to 4, Rodriguez said. The drone can only deliver to single-family homes and townhouses, but the team is working on a way to expand to apartments and condominiums. [https://www.pilotonline.com/business/consumer/vp-bz-walmart-droneup-deliveries-0318-20230318-z4m7tz3ekffpje7lb42ay22xoa-story.html?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=Today%27s%20Top%20Stories&utm\\_content=6261679164098&lctg=41041358](https://www.pilotonline.com/business/consumer/vp-bz-walmart-droneup-deliveries-0318-20230318-z4m7tz3ekffpje7lb42ay22xoa-story.html?utm_source=newsletter&utm_medium=email&utm_campaign=Today%27s%20Top%20Stories&utm_content=6261679164098&lctg=41041358)

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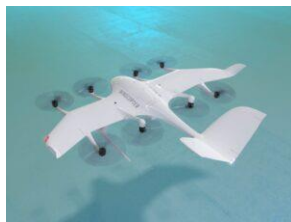
### More Powerful Still Emission Free: ZAL GmbH Partners with Wingcopter for Hydrogen Drone

Miriam McNabb March 19, 2023 by DRONELIFE Staff Writer Ian M. Crosby



German delivery drone company [Wingcopter](#) and [ZAL Center of Applied Aeronautical Research GmbH](#) have announced a development partnership to explore green hydrogen as a potential power source for Wingcopter's electric drones. The

partners will also develop a sustainable hydrogen-based propulsion system, which will be produced by Wingcopter and installed in its delivery drones.



The goal of replacing the Wingcopter 198's power source with hydrogen is for the drone to become more powerful while remaining emission free. While the Wingcopter already achieves higher ranges and speeds than most competitors' models, hydrogen propulsion could enable it to achieve even longer flight times and greater distances for delivery.

The Wingcopter's modification project will take place at ZAL's Fuel Cell Lab in Hamburg. The partners will develop a solution able to fit into the Wingcopter's current technical ecosystem while maintaining the drone's characteristic flight capabilities. Previously, the company's engineers were able to achieve a flight duration of over two hours with the ZALbatros hydrogen drone. This was made possible by utilizing compressed gaseous hydrogen in combination with a fuel cell, like the methods that will be employed in the Wingcopter.

<https://dronelife.com/2023/03/19/more-powerful-still-emission-free-zal-gmbh-partners-with-wingcopter-for-hydrogen-drone-project/>



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### Passenger eVTOL in Japan: LIFT Aircraft Completes First Piloted Flight with

**HEXA** Miriam McNabb March 19, 2023 by DRONELIFE Staff Writer Ian M. Crosby



This week, [LIFT Aircraft](#) conducted the **first-ever** piloted eVTOL demonstration flights in Japan using its HEXA aircraft. The flights were performed in collaboration with Marubeni Corporation, a partner of LIFT Aircraft in the development and advancement of Japan's eVTOL market, as well as with the participation of GMO Internet Group.

The demonstration flights were chosen for the Osaka Prefectural Government's FY2022 Subsidy for Urban Business Creation Flying Car Projects and as a Candidate Demonstrator for Expo 2025, the Japan Association's project for the 2025 World Exposition and the Osaka Chamber of Commerce and Industry.

The demonstrations were held for audiences including Japan's aviation authority, the Japan Civil Aviation Bureau. While HEXA conforms to FAA Part 103 for operation within the U.S. without aircraft type certification or a pilot's license, Japan lacks an equivalent regulation. JCAB meticulously evaluated the aircraft's safety, as well as the test program and the flight envelope, before granting permission for the demonstrations to begin.

Having formally concluded Phase 1 flight test and beginner flight envelope development with the **U.S. Air Force**, LIFT has launched Alpha Flights, enabling operation by people outside of their Flight Operations and Test teams. Alpha Flights featured as part of this week's demonstrations, with GMO Internet Group's Masatoshi Kumagai successfully piloting HEXA and completing three flight patterns after only around an hour of training and introduction to the aircraft. Nine flights were completed in Osaka, with LIFT and Marubeni to continue their Japan demo tour in Niihama and Imabari next week. <https://dronelife.com/2023/03/19/passenger-evtol-in-japan-lift-aircraft-completes-first-piloted-flight-with-hexa/>





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### White House aeronautics priorities: advanced air mobility and airspace

**integration** March 18, 2023 Philip Butterworth-Hayes UAS traffic management news



The White House Office of Science and Technology Policy has released the Biden-Harris Administration's priorities to advance a vision "for America's continued global leadership in aeronautics," according to a White House press release.

The [National Aeronautics Science and Technology Priorities](#) outlines the administration's aerospace priorities – including integrating drones and eVTOLs into the National

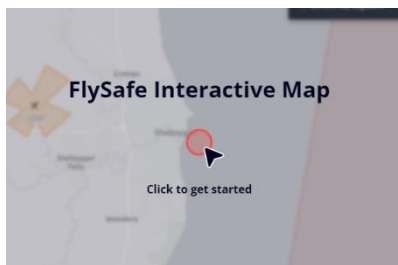
Airspace System and promoting Advanced Air Mobility technology research and implementation.

As the U.S. Government prioritizes the integration of new aerospace technologies into the NAS, these technologies have the potential to provide improved connectivity and speed to communities across the country. AAM vehicles operating as would-be air taxis have the potential to provide people with a new and exciting way to move around their communities. Drones flying at BVLOS can be used to transport high-value goods such as medical supplies point-to-point with unprecedented speed and efficiency. The U.S. Government will create pathways to ensure these technologies can be safely, equitably, and sustainably incorporated into the NAS, thereby promoting connectivity and speed.

<https://www.unmannedairspace.info/latest-news-and-information/white-house-aeronautics-priorities-advanced-air-mobility-and-airspace-integration/>

### Sheboygan County, Wisconsin, launches FlySafe Program in partnership with

**Airspace Link** March 20, 2023 Jenny Beechener UAS traffic management news



The Sheboygan County Planning & Conservation Office has launched the FlySafe program powered by AirHub aimed at safely integrating drones into the community. With the increasing popularity and accessibility of drones, the County recognizes the need to ensure they are used responsibly and in accordance with regulations.

The FlySafe program enables Sheboygan County residents and visitors to access FAA drone rules, local advisories, ground risk hazards, and additional information to help them plan safer and compliant flights when operating in the region. Pilots can access FlySafe via the Drone



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Operations page on the County Planning and Conservation Department page under Programs/Associations.

According to the press release, the FlySafe Program is critical in establishing two-way communication between drone pilots and their communities to ensure operations are in **harmony** with the community providing near-instant authorizations when operating in controlled airspace. Sheboygan County is committed to promoting innovation and technology while maintaining public safety. Launching the FlySafe Program is a step in the right direction toward achieving that goal. <https://www.unmannedairspace.info/latest-news-and-information/sheboygan-county-wisconsin-launches-flysafe-program-in-partnership-with-airspace-link/>

**NASA is using Joby flight simulators to design flight paths into vertiports** March 14, 2023 Philip Butterworth-Hayes UAS traffic management news



Pilots and flight engineers with NASA's AAM [National Campaign](#) are collaborating with Joby Aviation on a series of flight test simulations in Joby's vehicle simulator. The reference data they gather will provide insight into how these vehicles will fly in the airspace and help develop potential departures, approaches, missed approaches, and mid-flight waypoints, according to NASA.

"Integrating these in-flight maneuvers – which are used by aircraft to take off, land, and avoid hazards and each other – into AAM operations is one of several developmental efforts necessary to allow these vehicles to safely enter the airspace," reports the agency. "Four NASA research pilots have flown the Joby simulator, which includes joystick controls, avionics, and performance modeling that duplicate the feel of flying Joby's S4 air taxi. The tests involve flying the simulator along designated route waypoints, collecting data to analyze which maneuvers are best for obstacle avoidance, route efficiency, passenger comfort, and noise.

"The simulations also experiment with a new flight path concept the Federal Aviation Administration calls **a deproach**, in which a vehicle can fly in multiple directions as it travels to and from its starting point and adapt beyond its designated flight path if it needs to respond to air restrictions. <https://www.unmannedairspace.info/uncategorized/nasa-is-using-joby-flight-simulators-to-design-flight-paths-into-vertiports/>



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### Coca-Cola HBC investment in Manna marks expansion into US market for Irish start-up

March 20, 2023 Jenny Beechener UAS traffic management news



Ireland-based Drone services company Manna has announced investment from Coca-Cola HBC, the bottling partner of The Coca-Cola Company. The investment is the first step in the company's expansion into the US market. The company claims the partnership offers up to eight times less CO2 compared to car delivery.

The 10,000 residents in the **Dallas and Fort Worth area of Texas** will be the next to receive goods via drone as Manna has also partnered with real estate development firm Hillwood.

Manna Drones designs and builds specialized drones for rapid delivery of takeaway food, groceries, and pharmacy supplies up to 3.5kg in weight. With the autonomous delivery mechanism, the company reports a single employee can oversee and manage multiple drones, delivering 20 orders per hour, a figure that is **10x the industry standard** when compared to road-based deliveries – flying at an altitude of 50-80 meters and at a speed of over 60 kph.

<https://www.unmannedairspace.info/latest-news-and-information/coca-cola-hbc-investment-in-manna-marks-expansion-into-us-market-for-irish-start-up/>

### Zipline Launches New Autonomous Delivery System for Quiet, Fast, Precise Home Deliveries

March 19, 2023 News



Zipline today unveiled its new platform that provides quiet, fast and precise autonomous delivery directly to homes in cities and suburbs. The company's next generation home delivery platform is practically silent (designed to sound like wind rustling leaves) and is expected to deliver up to 7 times as fast as traditional automobile delivery, completing 10-mile deliveries in about 10 minutes.

Unlike other drone delivery services, Zipline's drones (Zips) fly more than 300 feet above the ground and are **nearly inaudible**. When the Zip arrives at its destination, it hovers safely and quietly at that altitude, while its fully autonomous delivery droid maneuvers down a tether, steers to the correct location, and gently drops off its package to areas as small as a patio table or the front steps of a home. This is all made possible through major innovations in aircraft and propeller design.



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Several businesses across the healthcare and restaurant sectors have already signed on to use Zipline's new home delivery service. Sweetgreen is partnering with Zipline to further its mission of connecting people to real food in the U.S., while moving a step closer to its pledge to be carbon-neutral by 2027. By ordering through Zipline's marketplace, Sweetgreen customers can get their orders using 97% less energy than traditional automotive methods.

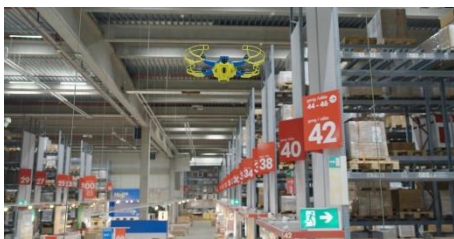
[https://uasweekly.com/2023/03/19/zipline-launches-new-autonomous-delivery-system-for-quiet-fast-and-precise-home-deliveries/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=zipline-launches-new-autonomous-delivery-system-for-quiet-fast-and-precise-home-deliveries&utm\\_term=2023-03-20](https://uasweekly.com/2023/03/19/zipline-launches-new-autonomous-delivery-system-for-quiet-fast-and-precise-home-deliveries/?utm_source=rss&utm_medium=rss&utm_campaign=zipline-launches-new-autonomous-delivery-system-for-quiet-fast-and-precise-home-deliveries&utm_term=2023-03-20)

**IKEA expands automated drone fleet for inventory operations** Bruce Crumley - Mar. 20th 2023



Swedish home furnishing giant IKEA was an [early adopter of drone services](#) when it introduced the craft for [automated tracking](#) of inventory in its stores. This month the company added another outlet using that aerial tech to its list, expanding **its fleet of label-scanning UAVs to a full 100.**

The Netherlands-based IKEA franchising partner [Ingka said](#) it had overseen the broadening of those [automated drone inventory](#) operations with the addition of the Zaventem, Belgium, store. That brought the total number UAVs keeping track of in-house supplies to 100, which are spread across **16 locations** in Belgium, Croatia, Slovenia, Germany, Italy, the Netherlands, and Switzerland – where the first IKEA outlet began using the technique in 2021.



Operation of [drones for automated](#) inventory work at IKEA stores is overseen by Swiss specialist Verity, which [just last week raised \\$32 million](#) in Series B funding that it plans to use for scaling to meet booming demand it currently can't fulfill.

The craft goes into action between **10:30 p.m. and 4 a.m.** when store and storage areas are empty, [scanning bar codes](#) on boxes stacked up to [warehouse](#) ceilings. Each IKEA facility has over 10,000 spots for stocking various items, which can take three months to check manually. Use of drones allows for far quicker completion of inventories, offering near real-time views of on-hand supplies and immediate detection of missing or misplaced items.

<https://dronedj.com/2023/03/20/ikea-expands-automated-drone-fleet-for-inventory-operations/>



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### Airbus and the Norwegian Air Ambulance Foundation Develop Medical Missions in Norway March 19, 2023 News



Airbus Helicopters has teamed up with the Norwegian Air Ambulance Foundation to develop the future of medical missions in Norway using electric vertical take-off and landing (eVTOL) aircraft. The aim is to reduce emergency response time for different types of air medical missions and improve patient outcomes and the overall performance of

the Norwegian Emergency Medical Services system.

The first step toward the creation of a medical eVTOL ecosystem will be the evaluation of the efficiency of the current emergency medical system in Norway, followed by the simulation of different air medical services scenarios integrating advanced air mobility assets. To develop the right concepts of operations for these complementary air medical missions, Airbus Helicopters and the Norwegian Air Ambulance Foundation will drive the definition of the foundational elements of the eVTOL ecosystem in the country, including infrastructure, traffic management, and energy sourcing and distribution. [https://uasweekly.com/2023/03/19/airbus-and-the-norwegian-air-ambulance-foundation-collaborate-to-develop-the-future-of-medical-missions-in-norway/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=airbus-and-the-norwegian-air-ambulance-foundation-collaborate-to-develop-the-future-of-medical-missions-in-norway&utm\\_term=2023-03-20](https://uasweekly.com/2023/03/19/airbus-and-the-norwegian-air-ambulance-foundation-collaborate-to-develop-the-future-of-medical-missions-in-norway/?utm_source=rss&utm_medium=rss&utm_campaign=airbus-and-the-norwegian-air-ambulance-foundation-collaborate-to-develop-the-future-of-medical-missions-in-norway&utm_term=2023-03-20)

21Mar23

### Pearland police become first in country to get FAA nod for station-controlled drone flight Yvette Orozco, Staff writer March 20, 2023



The Pearland Police Department's "Drone as First Responder program" is the **first in the nation** to receive FAA authorization to operate beyond visual line of sight. The department's DJI Matrice 30 drone is seen here after a demonstration flight on Friday, March 17, 2023.





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Instead of being controlled by operators stationed nearby or trailing in a vehicle, the police drones will rely [on a technology called Casia G, developed by Iris Automation Inc.](#), that enables remote airspace awareness during flight. The drones will use [another system, called DroneSense](#), to relay information to the operator at the station.

The suburb **south of Houston** seems a fitting place to deploy the technology, as police have a lot of ground to cover. With 129,000-plus residents and 49 square miles, Pearland is a mix of subdivisions, hospitals, schools, colleges, and shopping centers.

<https://www.houstonchronicle.com/neighborhood/pearland/article/pearland-pd-first-nation-use-faa-authorized-drone-17843191.php#photo-23586762>

## Ukraine is betting on drones to strike deep into Russia Mar 20th 2023



On february 28th the skies above Russia buzzed with the sound of hostile drones. St Petersburg, the country's second city, imposed a 200km no-fly zone around its airports. In Krasnodar in the south, an oil depot went up in flames. Drones reached Belgorod and Bryansk regions, which share a border with Ukraine. One even came close to Moscow—downed after reportedly clipping trees less than 100km from the capital.

The incursion was not the first time that Ukrainian unmanned aerial vehicles had found a way past Russian defenses, but it was **the first concerted attack of its kind**. It had many Ukrainians wondering if they had found a key to overturning Russia's long-range strike advantage

Ukraine is deploying drones in at least five different ways: as small, commercially available reconnaissance vehicles that can feed video footage back over a short range; as small-scale improvised loitering munitions, often designed to disturb more than destroy; as more sophisticated reconnaissance or electronic-warfare drones; as larger loitering munitions designed to destroy heavy armor; and as strike drones, whether airborne or naval, able to deliver bombs and missiles over distances of hundreds or even thousands of kilometers.

The army has completed a big restructuring, establishing 60 new attack-drone squadrons, at least one in every brigade, with separate staff and commanders. **This is the first reform of its kind anywhere in the world.** [https://www.economist.com/europe/2023/03/20/ukraine-is-betting-on-drones-to-strike-deep-into-russia?utm\\_medium=email.internal-newsletter.np&utm\\_source=salesforce-](https://www.economist.com/europe/2023/03/20/ukraine-is-betting-on-drones-to-strike-deep-into-russia?utm_medium=email.internal-newsletter.np&utm_source=salesforce-)



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### **New Multimodal Autonomous UAS Unveiled** Phoebe Grinter / 17 Mar 2023



[ISS Aerospace](#), a UK innovator of cutting-edge unmanned aerial systems, has unveiled the [Sensus L](#) multi-sensor UAS, a flexible drone platform that integrates, in a modular nature, multiple, large, industrial sensors to be able to gain rapid fused mission data, utilizing edge computing.

The flagship model integrates Ground Penetrating Radar, LiDAR, Thermal, and Multispectral sensors, and utilizes a universal central payload bay, complemented by fore and aft modular sensor rails.

According to ISS Aerospace, the system's 25kg maximum payload capacity and efficient design enable it to carry large LiDAR sensors such as the ASTRALiTe EDGE topo-bathymetric scanner and Yellowscan [Voyager/Explorer](#).

Data is recorded and edge-processed onboard reducing the need for large bandwidth RF links to a ground control station. Processed data is fused in the onboard Intel I9 workstation allowing for easy to interpret data sets, which support critical decision making in a timely manner.

System architecture networks the autopilot, avionics, and Intel workstation with an onboard Nvidia Xavier AI board to give supercomputer-level processing opportunities in flight and in real time. A natural evolution of the architecture is for autonomous operations based on collected sensor data. As the system generates and records vast amounts, it can be used in real time for navigation, avoidance, and on-the-fly tasking.

[https://www.unmannedsystemstechnology.com/2023/03/new-multimodal-autonomous-uas-unveiled/?utm\\_source=UST+eBrief&utm\\_campaign=40798a2091-ust-ebrief\\_2023-mar21&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-40798a2091-119747501&mc\\_cid=40798a2091&mc\\_eid=0d642a9d48](https://www.unmannedsystemstechnology.com/2023/03/new-multimodal-autonomous-uas-unveiled/?utm_source=UST+eBrief&utm_campaign=40798a2091-ust-ebrief_2023-mar21&utm_medium=email&utm_term=0_6fc3c01e8d-40798a2091-119747501&mc_cid=40798a2091&mc_eid=0d642a9d48)

### **Wingtra's \$22 million Series B funding earmarked to scale drone mapping and surveying** Bruce Crumley - Mar. 21st 2023

Launched in 2017 and later raising \$10 million in a Series A round, Zurich-based [Wingtra](#) is looking to expand its business by enhancing what it says is already industry-leading [drone mapping and surveying tech](#). The company says it's now the biggest producer of autonomous



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commercial VTOL craft, which [rapidly collect data](#) that associated software uses to create precise 2D and 3D models for customers in agriculture, mining, land management, environmental protection, and urban planning activities.

According to interviews Wingtra CEO Maximillion Boosfeld has given in announcing the \$22 million in new financing, the company wants to develop its [surveying drones](#) and modeling applications to such a degree of automation that – once missions and objectives have been programmed – human actors simply stand back and wait for the results.



Wingtra's second-generation drone, the WingtraOne GEN II, is already designed to be as easy to use as it is [effective in gathering data](#). The craft provides a "simplified workflow and intuitive system (that) allows surveyors with little to no drone flight experience to fly with confidence after minimal

training." <https://dronedj.com/2023/03/21/wingtras-22-million-series-b-funding-earmarked-to-scale-mapping-and-surveying-drone-activity/>

**22Mar23**

### **Australian Firm Selected by Pentagon to Build Hypersonic Test Aircraft** March 21, 2023 News



*Australian Aerospace Company Hypersonix Launch Systems to Develop High-Speed Aircraft for Pentagon's Hypersonic Testing*

The U.S. Department of Defense has selected Hypersonix Launch Systems, an Australian aerospace company, to develop a high-speed aircraft to test hypersonic technologies. The aircraft, called DART AE, will test high-speed platforms, components, sensors, and communication and control systems. According to Hypersonix, DART AE is powered by a **hydrogen-fueled scramjet** engine and can fly at speeds up to **Mach 7**.

The Defense Innovation Unit's Hypersonic and High-Cadence Airborne Testing Capabilities (HyCAT) program aims to alleviate the strain on government test infrastructure by partnering with non-traditional companies. DIU has not disclosed the value of the contract. Testing infrastructure has been a limiting factor in the development of hypersonic technologies, and the Pentagon aims to increase the cadence and fly at least one test per week with HyCAT being



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part of that strategy. [https://uasweekly.com/2023/03/21/australian-firm-selected-by-pentagon-to-build-hypersonic-test-aircraft/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=australian-firm-selected-by-pentagon-to-build-hypersonic-test-aircraft&utm\\_term=2023-03-21](https://uasweekly.com/2023/03/21/australian-firm-selected-by-pentagon-to-build-hypersonic-test-aircraft/?utm_source=rss&utm_medium=rss&utm_campaign=australian-firm-selected-by-pentagon-to-build-hypersonic-test-aircraft&utm_term=2023-03-21)

### **Bell APT Autonomous Cargo Drone Crashes in Texas** Mark Huber - March 20, 2023

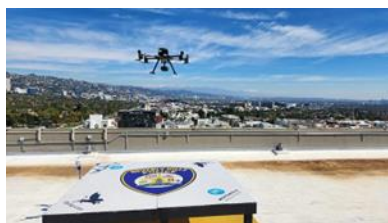


One of [Bell's Autonomous Pod Transport](#) (APT) cargo drones crashed on March 14 in a field near Mineral Wells, Texas, in what is being categorized as a "loss of control" accident by the FAA. A spokeswoman for Bell said that no injuries resulted from the incident and directed questions to the National Transportation Safety Board.

The APT 70 experimental aircraft, with registration number N314AL, first flew in 2019. It has a range of 22 miles with a 100-pound payload and a maximum speed of 86 knots. The battery-powered aircraft is designed to fly in winds up to 30 mph at temperatures up to 125 degrees F. Damage to the 300-pound vehicle is unknown.

Bell has long promoted its line of APT aircraft as a practical solution for the delivery of urgent military and civil cargo including medical supplies. The aircraft was [selected by NASA's Systems Integration and Operations program](#) to perform [test flights](#) to validate uncrewed aerial vehicle safety and control infrastructure. The company aims to develop and certify a production model that can carry 100 pounds of payload at speeds up to 100 knots. <https://www.ainonline.com/aviation-news/business-aviation/2023-03-20/bell-apt-autonomous-cargo-drone-crashes-texas>

### **Flying Lion and Iris Automation Enhance Drone First Responders with Airspace Awareness** March 22, 2023 News



Drone service provider, [Flying Lion, Inc.](#), and safety avionics technology innovator, [Iris Automation](#) have entered into a new partnership to provide Drone as First Responder (DFR) programs with enhanced airspace awareness. This partnership will see the addition of Iris Automation's [Casia G](#) ground-based detect and alert system to the Flying Lion suite of services.



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With over 22,000 DFR flights logged to date, Flying Lion has vast experience working closely with leading law enforcement agencies to provide rapid emergency response and aerial assessment through DFR program including for Chula Vista PD, Redondo Beach PD, Santa Monica PD, and Beverly Hills PD.

With the implementation of Casia G, the next generation of DFR programs will have the capability to create a volume of surveilled airspace to conduct drone operations **without the need for human visual observers**. Casia G is a small, passive, low-power, weather-hardened device that can be installed anywhere there is a clear view of the sky. This can be a rooftop, street light pole, cellular tower, or other vertical structure. Casia G detects cooperative aircraft using ADS-B and non-cooperative aircraft using Iris' patented computer vision and artificial intelligence software. [https://uasweekly.com/2023/03/22/flying-lion-and-iris-automation-enhance-drone-first-responder-dfr-programs-with-airspace-awareness-capabilities/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=flying-lion-and-iris-automation-enhance-drone-first-responder-dfr-programs-with-airspace-awareness-capabilities&utm\\_term=2023-03-22](https://uasweekly.com/2023/03/22/flying-lion-and-iris-automation-enhance-drone-first-responder-dfr-programs-with-airspace-awareness-capabilities/?utm_source=rss&utm_medium=rss&utm_campaign=flying-lion-and-iris-automation-enhance-drone-first-responder-dfr-programs-with-airspace-awareness-capabilities&utm_term=2023-03-22)

**DroneUp pairs with Embry-Riddle University in drone-focused program** Bruce Crumley - Mar. 22nd 2023



The [DroneUp](#) Talent Pathway Program aims to leverage [Embry-Riddle's](#) curriculum covering aviation, aerospace, and aerial security intelligence applications. The purpose is to both inform students about the kinds of careers available in the drone sector and help guide those interested toward the proliferating job

opportunities UAV companies are generating.

[DroneUp said](#) the initiative will be available to the over 32,750 full-time [Embry-Riddle students](#) receiving instruction at its residential campuses in Daytona Beach, Florida, and Prescott, Arizona, as well as its online-based Worldwide Campus.

While seeking to serve [participating students](#) and the broader UAV sector, DroneUp's new collaboration with Embry-Riddle will also give the company a leg up in spotting and recruiting potential employees for its own rapidly expanding business activities.





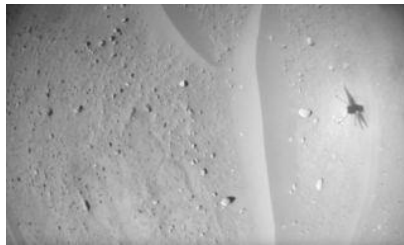
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Last year alone, [DroneUp launched 34 drone delivery](#) hubs in six states, notably in its longstanding partnership [with shareholder Walmart](#). As it continues to expand its network, the company says it will need more on-site engineers to oversee autonomous UAV flights as well as a wide range of skilled aerial tech workers. <https://dronedj.com/2023/03/22/droneup-pairs-with-embry-riddle-university-in-drone-focused-program/>

23Mar23

### Mars helicopter Ingenuity aces 48th flight on the Red Planet Robert

Lea published about 19 hours ago



NASA's Ingenuity Mars helicopter captured *this image of its own shadow* on March 21, 2023, during its 48th flight on the Red Planet.

NASA's Ingenuity Mars helicopter made its 48th off-Earth flight on Tuesday (March 21).

[Ingenuity](#) buzzed over the Martian landscape at a maximum altitude of around 39 feet observing potential science targets that could be studied by its robotic partner, NASA's life-hunting [Perseverance](#) rover.

Ingenuity traveled at a top speed of 10.4 mph during Tuesday's flight, which covered a horizontal distance of around 1,300 feet and lasted nearly 150 seconds, according to [the mission's flight log](#).

March has been an important month for Ingenuity and its operators. Not only has the "Marscopter" made its 47th and 48th flights in March, but this month marks exactly one [Earth](#) year since the mission of the helicopter was extended by NASA officials. <https://www.space.com/nasa-ingenuity-mars-helicopter-flight-48>

### Lockheed Martin invests in Rhode Island seaglider start up. Here's what they're building. Patrick Anderson The Providence Journal March 22, 2023

North Kingstown-based electric "seaglider" startup [Regent Craft](#) is now backed by the investment arm of defense contracting giant Lockheed Martin, the companies announced Wednesday.



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Regent, which moved to Rhode Island from Burlington, Massachusetts last year, is developing a new type of passenger boat-plane hybrid that can take off from and fly low along the surface of the water.

Regent markets its seaglidors as an alternative to commercial aviation and ferries for coastal areas, but the Lockheed Martin Ventures investment points to significant interest from military customers. Regent says it has **orders for over 400 seaglidors worth more than \$7.9 billion**.

[Last June the state Commerce Corporation approved up to \\$13 million in tax credits for Regent.](#) The company pledged to create **300 full-time jobs by 2028** and spend \$367 million building a new facility at Quonset.  
<https://www.providencejournal.com/story/news/military/2023/03/22/lockheed-martin-invests-in-regent-craft-for-military-seaglidors/70038239007/>

**24Mar23**

## Archer and United Announce Plans for First Commercial eVTOL Route in Chicago

Jessica Reed | March 23, 2023



Archer Aviation and United Airlines announced the first commercial route for eVTOL (electric vertical take-off and landing) aircraft—from Newark Airport to a heliport in downtown Manhattan—[last November](#). Today, the companies announced another launch city: Chicago.

The route will connect Vertiport Chicago, the largest facility for VTOL aircraft in North America, with O'Hare International Airport. This trip could take an hour or more by car. In comparison, Archer's eVTOL aircraft Midnight can make this journey in about **10 minutes**.

Some of the partners that United and Archer are working with include the City of Chicago, World Business Chicago, Chicago Department of Aviation, the State of Illinois, and ComEd, along with Vertiport Chicago. They need to establish appropriate infrastructure in and around the city's metropolitan area to ensure the safe integration of eVTOL operations in **2025**.



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According to [Archer's announcement](#), Vertiport Chicago—which is located in the Illinois Medical District near the Chicago Loop—was chosen for the route connecting the city center with the airport “because of its unparalleled convenience, access and service.”

Chicago Mayor Lori E. Lightfoot remarked on the announcement, saying that Chicago is a place where technological innovation thrives. "This exciting new technology will further decarbonize our means of transportation, taking us another step forward in our fight against climate change. I'm pleased that Chicago residents will be among the first in the nation to experience this innovative, convenient form of travel." [https://www.aviationtoday.com/2023/03/23/archer-and-united-announce-plans-for-first-commercial-evtol-route-in-chicago/?oly\\_enc\\_id=7021F0632090D7B](https://www.aviationtoday.com/2023/03/23/archer-and-united-announce-plans-for-first-commercial-evtol-route-in-chicago/?oly_enc_id=7021F0632090D7B)

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