

#### **Contents**

- 2 Red Cat sending 200 fast, long-range Teal FPV drones to Ukraine
- 2 Microdrones unveils EasyOne, new survey-grade LiDAR drone
- 3 Expansion of Zipline Home Drone Delivery Services: GNC, Pagliacci Pizza, and More
- 4 Who Owns the Airspace Over My House? The Chicken Farmer Case and Regulations
- 4 THIS WOMAN OVERSEES DRONE FLIGHTS IN MORE THAN 130 DIFFERENT COUNTRIES
- 5 The UAV Leasing Company is launching its own line of MALE UAVs
- 6 SMITHSONIAN AIR AND SPACE MUSEUM AWARDS FOR FEMALE DRONE TRAILBLAZERS
- 6 DroneUp Tests Wonder Robotics "WonderLand" Precision Landing Solution
- 7 A Drone Superhighway Gets the UK Where It Needs to Go
- 8 How this company plans to 3D map the entire world
- 8 Xwing Secures Contract to Introduce Autonomous Flight Technology to the U.S. Air Force
- 9 RedCat Will Send 200 FPV Drones to Ukraine
- 10 New Precise Landing Technology Tested for Autonomous Delivery Drones
- 10 Wingcopter to Scale Up Electric Delivery Drones & Logistics Services
- 11 GA-ASI Successfully Delivers First New-Build MQ-9A to US Marine Corps
- 12 Supernal and Inmarsat Collaborate for Connectivity for Advanced Air Mobility Vehicles
- 12 Zipline Keeps Working on 'Changing Delivery for Good'
- 13 Navy links uncrewed air, sea tech to solve Integrated Battle Problem
- 14 Mark Your Calendar: 2023 FAA Drone Symposium and Advanced Air Mobility Summit
- 14 An Amphibious Passenger eVTOL: LIFT's HEXA Capable of Water Takeoff and Landing
- 15 WINGCOPTER INVESTMENT OFFERS HOPE FOR DRONE DELIVERIES
- 15 U.S. forms team to set strategy on flying air taxis
- 16 QinetiQ to deliver unique Banshee Jet 80+ target system to US Army
- 17 Honeywell's 1-Megawatt Generator to Power Flying Whales' Aircraft
- 17 Radiation Surveying: Elios 3 Indoor Inspection Drone Gets New Payload
- 18 Spain invests 500 million euros in Airbus SIRTAP UAS project
- 19 Chinese-made military drones have hidden tech to stop them being used to attack China
- 19 DOT Wants Public Input on AAM Acceptance in U.S. Skies
- 20 Automated indoor monitoring with Parrot ANAFI Ai drone



### 13May23

## Red Cat sending 200 fast, long-range Teal FPV drones to Ukraine Bruce Crumley | May 11 2023



The owner of Utah security and defense UAV producer <u>Teal</u> <u>drones</u>, Red Cat Holdings, says it is moving to deliver 200 long-range first person view (FPV) UAVs to <u>Ukraine</u> for use in the nation's <u>anticipated counter-offensive</u> against invading Russian forces.

Red Cat said it expects to hand over the relatively large number of specialized FPV drones sometime in June. The development follows CEO Jeff Thompson's meetings with NATO leaders in February to discuss the possibility of providing Ukraine with Teal military aerial tech. That effort apparently led to the transaction that will deliver 200 of the long-range, high-speed UAVs to Kyiv in coming weeks.

A <u>Red Cat communiqué</u> described the Teal-made craft as having "the highest power-to-weight ratio in the drone industry, offering increased maneuverability, especially when combined with the FPV functionality of the drones." It noted the UAVs can also be flown in GPS-denied and -jammed battlefield conditions. <a href="https://dronedj.com/2023/05/11/red-cat-sending-200-fast-long-range-teal-fpv-drones-to-ukraine/">https://dronedj.com/2023/05/11/red-cat-sending-200-fast-long-range-teal-fpv-drones-to-ukraine/</a>

## Microdrones unveils EasyOne, new survey-grade LiDAR drone Ishveena Singh | May 11 2023



Microdrones, an aerial mapping technology company with German roots, has built a new drone platform to cater to the demands of surveying professionals. Named EasyOne, the new offering is an optimized and fully integrated drone system with the lifting power to carry LiDAR and photogrammetry surveying equipment.

According to Microdrones, EasyOne is just as powerful and capable as the company's legacy systems, such as the md4-1000, but it's even easier to use.

As Frank Darmayan, company CTO, explains, "It fits in a case that's about two and a half feet long and a foot and a half wide and deep. The mdCockpit mission planning screen is fully



integrated into the remote controller. And all sensitive onboard electronics are designed, manufactured, and assembled in Germany."

While you can find the complete technical specifications of the EasyOne LiDAR drone <a href="https://example.com/example.com/2023/05/11/microdrones-easyone-lidar-drone/">here,</a> MicroDrones CEO Vivien Heriard-Dubreuil is quick to stress that the product is a complete package. It includes the drone, RC, mdCockpit flight planning software, survey LiDAR+ imagery payload, LP360 data processing software, workflow, training, and support. <a href="https://dronedj.com/2023/05/11/microdrones-easyone-lidar-drone/">https://dronedj.com/2023/05/11/microdrones-easyone-lidar-drone/</a>

### Expansion of Zipline Home Drone Delivery Services: GNC, Pagliacci Pizza, and

**More** Miriam McNabb May 11, 2023 by DRONELIFE Staff Writer Ian M. Crosby



Drone delivery leader Zipline is expanding its services through the formation of new partnerships with health and wellness brand GNC in Salt Lake City, Pagliacci Pizza in Seattle, and healthcare logistics provider Associated Couriers in Long Island.

All three companies will be utilizing Zipline's

new home delivery platform. This follows an <u>announcement</u> this past March that Zipline's Platform 2 technology would be used by sweetgreen, Michigan Medicine, MultiCare Health Systems, Intermountain Health and the Government of Rwanda.



Zipline's nearly-silent <u>Platform 2</u> Zip drones fly over 300 feet above ground, hovering safely above their destination, where its autonomous delivery droid drops off payloads using a tether. The Platform 2 is usable for delivery within a 10- mile service radius, as well as as a network in which Zips can travel up to 24 miles each way from dock to dock, extending a business' reach.

GNC will begin offering Zipline delivery from its Utah stores later this year, using Zipline's Platform 1 long-range delivery system which has completed

over 600,000 deliveries on three continents. <a href="https://dronelife.com/2023/05/11/expansion-of-zipline-home-drone-delivery-services-gnc-pagliacci-pizza-and-more/">https://dronelife.com/2023/05/11/expansion-of-zipline-home-drone-delivery-services-gnc-pagliacci-pizza-and-more/</a>



# Who Owns the Airspace Over My House? The Chicken Farmer Case and Regulations Miriam McNabb May 11, 2023



In 1946, a chicken farmer located outside of Greensboro, North Carolina named <u>Thomas Lee Causby sued the United States</u>. At the time, Causby's farm was located near a military airport. Frequent flights over his property frightened and killed more than 150 of his chickens, forcing Causby to abandon his business. Causby argued that by using the airspace over his property, the government had seized his

property without compensation, in violation of the Takings Clause of the 5th Amendment.

Given the damage to his property, Causby was granted compensation – and started an argument about property rights that continues to this day. At the <u>AUVSI Xponential</u> conference in Denver this week, a group of drone advocacy experts explained why the case is often incorrectly referenced – and how drone industry stakeholders can better communicate with state and local lawmakers to create reasonable state and local regulations regarding drone use in the airspace over private property. <a href="https://dronelife.com/2023/05/11/who-owns-the-airspace-over-my-house-the-chicken-farmer-case-and-advocating-for-reasonable-state-and-local-drone-regulations/">https://dronelife.com/2023/05/11/who-owns-the-airspace-over-my-house-the-chicken-farmer-case-and-advocating-for-reasonable-state-and-local-drone-regulations/</a>

# THIS WOMAN OVERSEES DRONE FLIGHTS IN MORE THAN 130 DIFFERENT COUNTRIES May 8, 2023 Sally French



Margherita Bruscolini is Head of Drones at <u>Globhe</u>, a massive drone data-gathering company based in Sweden that works with more than 8,000 drone operators worldwide to collect

high-resolution drone data from more than 130 countries, which are then delivered to clients.



Globhe's drone flights span various verticals —mainly global health, water, extreme weather events, environment, agriculture, forestry, infrastructure, and renewable energy. Globhe's customers are businesses, governments, organizations, and researchers — all of whom seek Globhe's high-resolution drone data to increase their own work efficiencies and/or lower costs through applications such as map-making

or conducting inspections. See the Drone Girl interview:

https://www.thedronegirl.com/2023/05/12/margherita-bruscolini/



But the difference between companies with their own drone teams and Globhe's customers is that Globhe customers don't have to organize and project manage the drones themselves. They pay Globhe — and then Globhe's worldwide network of locally-based drone pilots is set to work

And it's in large part overseen by this one woman. Bruscolini is responsible for organizing and supervising drone operations globally — making sure everything runs each step of the way smoothly, from the drone data order reception to planning, assigning local drone operators, flying, and data delivery to the customer. <a href="https://www.thedronegirl.com/2023/05/12/margherita-bruscolini/">https://www.thedronegirl.com/2023/05/12/margherita-bruscolini/</a>

### 13May23

### The UAV Leasing Company is launching its own line of MALE UAVs. May 12, 2023 News



The Pipistrel Sinus and Virus are well-known amongst the ultralight pilot community as being a competitive solution for weekend flying and travel. This aircraft is also used by law enforcement for surveillance (a camera is fixed under the belly of the airplane) and by military agencies for training (the Indian Army bought 200 units a few years ago).

With exceptional aerodynamic features allowing for low fuel consumption and thus extra-long loitering capabilities, Leaseco has been proposing them under the AAROS\* brand in an uncrewed configuration able to stay aloft for more than 15+ hours with a payload of 150+ kilograms for such missions as illegal maritime activity, border patrol, search and rescue and even scientific monitoring in Antarctica and disaster relief.

In 2022, Leaseco launched an ambitious UAV Consortium involving composite and autopilot experts as well as experts in the field of certification and ISR. The goal is to launch a next generation platform similar to the Sinus but specifically designed for uncrewed missions. The new platform will have enhanced wings with next generation laminar airfoil and optimized planform, a leaner fuselage, reinforced structural points and retractable landing gear which should improve its performance by 30 to 45%. A new company is being formed which will host all the relevant IP and will be attracting investments soon.

https://uasweekly.com/2023/05/12/the-uav-leasing-company-a-major-player-in-the-male-uav-



<u>segment/?utm\_source=rss&utm\_medium=rss&utm\_campaign=the-uav-leasing-company-a-major-player-in-the-male-uav-segment&utm\_term=2023-05-12</u>

### 15May23

# SMITHSONIAN AIR AND SPACE MUSEUM AWARDS FOR FEMALE DRONE TRAILBLAZERS May 8, 2023 Sally French



The 2023 Women in Emerging Aviation
Technology Awards is not a new program, but
it's gone through quite the evolution. It
started as simply a drone-focused awards
ceremony but — as drones have morphed to

encompass similar tech like air taxis — the awards program also grew to encompass general 'emerging aviation technology.'

The program, which was launched in 2017, is designed to recognize women who have made major contributions to areas including business, policy-making, engineering, teaching and research within the emerging aviation industries.

The physical ceremony itself has also become bigger and better each year. In its early years, it was held as part of the now-defunct Interdrone conference. But after <a href="Interdrone was cancelled in 2021">Interdrone was cancelled in 2021</a>, it nabbed a prominent spot at the Las Vegas Convention Center as part of CES 2022, which is largely considered the <a href="Iargest tech trade show in the world">Iargest tech trade show in the world</a>. The awards ceremony was held once again at <a href="CES 2023">CES 2023</a>, but once again in a bigger and better way, thanks to the addition of the <a href="inaugural Hall of Fame">inaugural Hall of Fame</a>. (Full disclosure, <a href="yours truly">yours truly</a>, Sally French, was named to the Hall of Fame in 2023 for creating The Drone Girl).

https://www.thedronegirl.com/2023/05/15/smithsonian-women-and-drones/

### **DroneUp Tests Wonder Robotics "WonderLand" Precision Landing**

**Solution** Miriam McNabb: May 12, 2023 by DRONELIFE Staff Writer Ian M. Crosby



Drone delivery leader <u>DroneUp</u> and Israeli autonomous solutions startup <u>Wonder Robotics</u> have concluded an initial operational evaluation using DroneUp's drone platform for improved autonomy and safety.

The initial evaluation saw DroneUp drones running Wonder Robotics' "WonderLand" solution, allowing for smart precision autonomous landing,



accurate winch delivery, and an advanced contingency plan. WonderLand also enables the safe and autonomous oversight of multiple drone deliveries at once by a single flight engineer, which will assist DroneUp in scaling its operations.

WonderLand features vertical awareness (Vertical Detect And Avoid) and robust precision landing, enabling BVLOS drone operations at scale. Obstacle avoidance systems grant the drones the ability to maneuver around obstacles such as trees, buildings, and cables, resulting in fast and safe deliveries. DroneUp will be validating Wonder Robotics' technology in additional locations through further operational flight tests.

https://dronelife.com/2023/05/12/droneup-tests-wonder-robotics-wonderland-precision-landing-solution/

## A Drone Superhighway Gets the UK Where It Needs to Go Dave Lee | Bloomberg May 11, 2023



LIVERPOOL, ENGLAND - MAY 07: Images from the drone display during the National Lottery's Big Eurovision Welcome event outside St George's Hall on May 07, 2023 in Liverpool, England. Joel Dommett and AJ Ododu host "The National Lottery's Big Eurovision Welcome" event in front of an audience of 25,000, combining world-class music, aerial performances, projection mapping, drones display, fireworks and

much more. Highlights from the event will be featured as part of the TV special "Eurovision Welcomes The World" on BBC One / BBC iPlayer – Monday 8 May, 6.30pm.

Spanning some 165 miles and extending more than six miles wide and potentially hundreds of feet tall, it could be a Jetsons-esque marvel, turning the UK into a world leader in drone adoption.

Project Skyway, to use its official name, was green light by the government last year and is backed by a consortium of UK tech startups led by Altitude Angel — a Reading-based drone air traffic control company — and telecoms giant BT Group Plc. The first portion of the corridor is planned to connect Reading and Coventry..

The corridor is intended to eventually consist of multiple layers: Smaller drones carrying packages could move in lower airspace underneath larger drones carrying people. All of this will be monitored by ground-level sensors looking up and enabling an "automated air traffic



control" system that should be interoperable between drone makers without need for extra hardware. If something — such as a helicopter — flies through the corridor, the drones should automatically react to avoid a

**collision.** https://www.washingtonpost.com/business/2023/05/11/drone-superhighway-gets-the-uk-where-it-needs-to-go/570fdcdc-efb5-11ed-b67d-a219ec5dfd30\_story.html

### How this company plans to 3D map the entire world Seth Kurkowski | May 15 2023 -



LiDAR, or Light Detection and Ranging, is a way to measure ground elevation with light with millimeter accuracy. The process works by shooting a light beam down at the surface and then measuring the light that returns after being reflected by the ground. The sensor can also detect changes made to the light if it passes through the foliage, like trees

or bushes.

Typically if you want to get LiDAR mapping of your proper, you have to turn to aircraft or drones. Drone LiDAR mapping has become a rather popular item for companies like <u>DJI</u>, <u>Skydio</u>, and <u>Autel</u>. All three companies build drones to fly automated flight plans around buildings or open land and generate a map within minutes. Skydio has even taken this to the military with its X2 drone, saying forces out in the field can easily create maps of villages.

With the ability to now build smaller satellites that can support the power needed for LiDAR technology, NUVIEW is looking to move that data collecting to space. The company announced earlier this month that it will <a href="mailto:launch 20 satellites into low Earth orbit">low Earth orbit</a> to generate the first 3D map of the entire globe. <a href="https://spaceexplored.com/2023/05/15/how-this-company-plans-to-3d-map-the-entire-world/#more-93321">https://spaceexplored.com/2023/05/15/how-this-company-plans-to-3d-map-the-entire-world/#more-93321</a>

# Xwing Secures Contract to Introduce Autonomous Flight Technology to the U.S. Air Force May 15, 2023 Military | News



Autonomous aviation company, <u>Xwing</u>, announced today that it was awarded a Phase II Small Business Innovation Research (SBIR) contract with the USAF's AFWERX Prime program. Through the agreement, Xwing will operate autonomous flight trials via its Superpilot flight system to advance the development of remote operations and



optimize the technology for future missions.

To quickly obtain user feedback on usability, mission planning factors, and features for future efforts, the trials will be performed on the Cessna 208B. The same platform on which Xwing first demonstrated an <u>autonomous gate-to-gate flight</u> in 2021. Once the use case for this system is validated, it will be possible to rapidly expand the capabilities to other aircraft since Xwing has developed its system to be transferable to other CTOL or VTOL platforms.

Xwing and the USAF kicked off the Phase II SBIR work recently in Northern California, where they will complete trials over a 21-month period. During these trials, current Air Force pilots and operational commanders will be able to provide feedback on usability and human factors related to Xwing Superpilot remote operations. <a href="https://uasweekly.com/2023/05/15/xwing-secures-contract-to-introduce-autonomous-flight-technology-to-the-u-s-air-force/?utm\_source=rss&utm\_medium=rss&utm\_campaign=xwing-secures-contract-to-introduce-autonomous-flight-technology-to-the-u-s-air-force&utm\_term=2023-05-15</a>

### 16May23

**RedCat Will Send 200 FPV Drones to Ukraine** DRONELIFE Staff Writer Ian M. Crosby Miriam McNabb May 15, 2023



Military technology company <u>Red Cat Holdings</u> announced it will be filling a purchase order from Ukraine for 200 long-range, high-speed FPV (first-person view) drones. Scheduled to arrive in June, the drones possess an industry-leading power-to-weight ratio, granting improved maneuverability further enhanced by their FPV functionality. The drones are capable of operation within GPS-denied and GPS-jammed environments.

The Teal 2 is designed to <u>Dominate the Night™</u>. <u>Officially launched last month</u>, the drone is equipped with <u>Teledyne FLIR</u>'s new Hadron 640R sensor, granting end-users the highest resolution thermal imaging available in a small form factor specialized for nighttime operations. <u>Athena AI</u>, <u>Reveal Technology</u>, and <u>Tomahawk Robotics</u> all serve as technology partners for the Teal 2. <u>https://dronelife.com/2023/05/15/redcat-will-send-200-fpv-drones-to-ukraine/</u>



## New Precise Landing Technology Tested for Autonomous Delivery Drones Sarah Simpson / 16 May 2023



Initial testing consists of the Safe Precise Landing Software, which is an important building block for safe and autonomous delivery and landing by drone. This collaboration started approximately one year ago and has included onsite testing and integration into the DroneUp fleet.

"Spleenlab's software is incredibly promising for our efforts to increase automation while maintaining our high degree of safety standards," said

John Vernon, CTO of DroneUp.

During the practical flight tests, various safety scenarios were run through. The so-called "Vertical Clearance" function was tested during package delivery and the landing process. The unique safety approach of Spleenlab's VISIONAIRY® Software makes it an irreplaceable tool in the process of operator free drone delivery. The modular approach involves different sensors such as camera and LiDAR to check whether there are static or dynamic objects in the landing or descending area of the package. If the area is clear, the package to be delivered can then be roped down.

From a height of approximately 100 feet, package rappelling and additionally Safe Precise Landing were tested. Initial integration testing was successful, and the partners are continuing the evaluation of the system. <a href="https://www.unmannedsystemstechnology.com/2023/05/new-precise-landing-technology-tested-for-autonomous-delivery-drones/?utm\_source=UST+eBrief&utm\_campaign=e774df86fc-ust-ebrief\_2023-05-16&utm\_medium=email&utm\_term=0\_6fc3c01e8d-e774df86fc-111778317&mc\_cid=e774df86fc&mc\_eid=acabe18a61</a>

# Wingcopter to Scale Up Electric Delivery Drones & Logistics Services Phoebe Grinter / 16 May 2023



The European Investment Bank (EIB) will provide a €40 million quasi-equity investment into Wingcopter GmbH, a European provider of unmanned delivery drone technology and related services.

Wingcopter's electrically powered unmanned aircraft are already delivering goods as part of several small-scale commercial and humanitarian projects. For example, in Malawi, a joint project with UNICEF and Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf



of the German Federal Ministry for Economic Cooperation and Development (BMZ) has seen Wingcopter's drones deliver life-saving medicines and medical supplies to rural communities in hard-to-reach areas.

The Wingcopter 198 is expected to be operated for the first time in Germany this summer when Wingcopter launches a pilot project in southern Hesse to test the potential of on-demand transport of groceries and other consumer goods. It is funded by the German Federal Ministry for Digital and Transport.

Wingcopter's cargo drones can take off and land vertically while flying quickly and efficiently over long distances. They can carry up to 5 kg and cover distances of up to 100 km. <a href="https://www.unmannedsystemstechnology.com/2023/05/wingcopter-to-scale-up-electric-delivery-drones-logistics-services/?utm\_source=UST+eBrief&utm\_campaign=e774df86fc-ust-ebrief\_2023-05-16&utm\_medium=email&utm\_term=0\_6fc3c01e8d-e774df86fc-111778317&mc\_cid=e774df86fc&mc\_eid=acabe18a61</a>

## GA-ASI Successfully Delivers First New-Build MQ-9A to US Marine Corps May 16, 2023 Military | News



General Atomics Aeronautical Systems, Inc. (GA-ASI) and the U.S. Marine Corps (USMC) are celebrating the delivery of the first new-build MQ-9A Extended Range (ER) UAS to Naval Air Systems Command (NAVAIR) on April 19, 2023.

GA-ASI was <u>selected by the USMC</u> in 2022 to deliver

eight MQ-9A ER UAS as part of the ARES Indefinite-Delivery/Indefinite-Quantity (ID/IQ) contract.

The MQ-9A ER is designed with field-retrofittable capabilities such as wing-borne fuel pods and reinforced landing gear that extend the aircraft's endurance to more than 30 hours while further increasing its operational flexibility. The aircraft provides long-endurance, persistent surveillance capabilities with Full-Motion Video and Synthetic Aperture Radar/Moving Target Indicator/Maritime Mode Radar. An extremely reliable aircraft, MQ-9A ER is equipped with a fault-tolerant flight control system and triple-redundant avionics system architecture. <a href="https://uasweekly.com/2023/05/16/ga-asi-successfully-delivers-first-new-build-mq-9a-to-us-marine-corps/2utm\_source=rss&utm\_medium=rss&utm\_campaign=ga-asi-successfully-delivers-first-new-build-mq-9a-to-us-marine-corps&utm\_term=2023-05-16</a>



# Supernal and Inmarsat Collaborate for Connectivity for Advanced Air Mobility Vehicles May 15, 2023 News



Supernal and Inmarsat announced a partnership to define the application of satellite connectivity in Advanced Air Mobility (AAM). Together, the companies will conduct testing and data sharing to optimism hardware and network systems, which will lead to the safe and efficient integration of electric vertical takeoff and landing (eVTOL) vehicles into the airspace.

During vehicle testing, Supernal will connect its eVTOL to Inmarsat's Velaris SATCOM service to assess capabilities such as aircraft state and telemetry monitoring. Velaris builds on Inmarsat's vast three-decade experience in air traffic management communications and is powered by its high resilience ELERA global satellite communications network.

The partnership signifies the importance of highly reliable and secure satellite communications as part of the design and certification of eVTOL platforms.

https://uasweekly.com/2023/05/15/supernal-and-inmarsat-collaborate-to-enhance-connectivity-for-advanced-air-mobility-vehicles/?utm\_source=rss&utm\_medium=rss&utm\_campaign=supernal-and-inmarsat-collaborate-to-enhance-connectivity-for-advanced-air-mobility-vehicles&utm\_term=2023-05-16

### Zipline Keeps Working on 'Changing Delivery for Good' ABE PECK MAY 12, 2023



Since the autonomous logistics company began in March 2014, it has done much to keep one of its brand promises: "changing delivery for good." To date, its fixed wing all-electric vehicles have flown 40 million miles in seven countries, mostly BVLOS.

In Rwanda, where Zipline deliveries of blood and

blood products earned worldwide attention, "Zip" drones have helped reduce wastage by 67% with 88% fewer hospital maternal deaths due to postpartum hemorrhaging as compared with non-drone-use facilities. Globally, Zipline now serves 3,400 hospitals and health care facilities, is contracted to serve more than 10,000, and is rapidly expanding the product roster it delivers.



Last year, Zipline entered Asia, flying medical supplies to a remote island chain in Japan, representing the first time the country's Civil Aviation Bureau approved BVLOS flying without onboard cameras in its busy airspace.

Closer to home, last year Zipline scored the FAA's Part 135 certification under the agency's BEYONDinitiative to safely integrate BVLOS drone operations into the National Airspace System. And this March saw the introduction of the Platform 2 Zip, designed to autonomously deliver twice the weight of the original to denser populations, including individual homes. Once again, many delivery locations will be beyond visual view. <a href="https://insideunmannedsystems.com/zipline-keeps-working-on-changing-delivery-for-good/">https://insideunmannedsystems.com/zipline-keeps-working-on-changing-delivery-for-good/</a>

### Navy links uncrewed air, sea tech to solve Integrated Battle

**Problem** Colin Demarest May 11



WASHINGTON — The U.S. Navy tested what one commander described as a combination of "unmanned and unmanned" sea and air capabilities in a Pacific Fleet demonstration known as Integrated Battle Problem 23.1.

During the exercise, which began May 1 off the coast of California and runs through Friday, a V-BAT drone made by Shield AI was launched from a Leidos Seahawk

medium displacement unmanned surface vessel, according to <u>Cmdr. Jerry Daley</u>, the leader of Unmanned Surface Vessel Division One.

IBP 23.1 "gave operators more of a hands-on experience with a longer list and more-diverse list of unmanned systems at sea and in a combat environment," Daley told reporters May 11. "It was predominantly, if not exclusively, all unmanned systems for this event."

The latest trials, he added, represent the "next step in the progression of integrating unmanned systems into fleet operations across the continuum, under the sea, on the surface and in the air." <a href="https://www.c4isrnet.com/unmanned/2023/05/11/navy-links-uncrewed-air-sea-tech-to-solve-integrated-battle-problem/">https://www.c4isrnet.com/unmanned/2023/05/11/navy-links-uncrewed-air-sea-tech-to-solve-integrated-battle-problem/</a>



# Mark Your Calendar: 2023 FAA Drone Symposium and Advanced Air Mobility Summit May 5, 2023



**WASHINGTON**— The Federal Aviation Administration (FAA) and the Association for Uncrewed Vehicle Systems International (AUVSI) will co-host the 8th Annual FAA Drone Symposium and

the first-ever Advanced Air Mobility Summit this summer.

The two events, from **Aug. 1-3 at the Baltimore Convention Center in Maryland**, will bring together representatives from the FAA, other government agencies, international aviation experts, industry leaders and academia. The presenters and panelists will discuss the latest information and advancements related to the diverse uses of drones and the safe integration of Advanced Air Mobility (AAM) aircraft, like air taxis, into the National Airspace System.

This year's Drone Symposium theme is "Time to Accelerate." Sessions and workshops will focus on how the FAA continues to safely integrate drones while creating a regulatory framework to accelerate advanced operations such as beyond visual line of sight and UAS Traffic Management (UTM).

The first-ever FAA AAM Summit theme is "Leveraging the Skies." Sessions and workshops will focus on how air taxis and electric vertical take-off, and landing (eVTOL) aircraft will change the future of aviation. To register and get updates on event programming, visit: • AAM Summit: <a href="https://aamsummit.org/home">https://aamsummit.org/home</a> DroneSymposium: <a href="https://faadronesymposium.org/home">https://faadronesymposium.org/home</a> <a href="https://www.faa.gov/newsroom/mark-your-calendar-2023-faa-drone-symposium-and-advanced-air-mobility-summit">https://www.faa.gov/newsroom/mark-your-calendar-2023-faa-drone-symposium-and-advanced-air-mobility-summit</a>

#### 17May23

# An Amphibious Passenger eVTOL: LIFT's HEXA Capable of Water Takeoff and Landing Miriam McNabb May 16, 2023 by DRONELIFE Staff Writer Ian M. Crosby



<u>LIFT Aircraft</u> recently tested the floatation ability of its HEXA aircraft in preparation for its upcoming public launch and U.S. Tour. During the flight, the aircraft was able to successfully execute a takeoff and landing from the water.

The test involved the amphibious aircraft's bottom floats, 6 of which are located on its legs and one in its center. These floats



give the aircraft the ability to take off and land on the water. In addition to serving as a safety feature, the HEXA's amphibious design synthesizes with its compact size and eVTOL capability to enable a wide range of possible use cases.

HEXA is positioned to be ideally suited for public safety applications, including emergency response, search-and-rescue missions, emergency medical services, and humanitarian aid efforts. In response to natural disasters or medical emergencies within remote locations, HEXA grants the ability to rapidly transport crucial supplies, medical personnel, and equipment. <a href="https://dronelife.com/2023/05/16/an-amphibious-passenger-evtol-lifts-hexa-capable-of-water-takeoff-and-landing/">https://dronelife.com/2023/05/16/an-amphibious-passenger-evtol-lifts-hexa-capable-of-water-takeoff-and-landing/</a>

# WINGCOPTER INVESTMENT OFFERS HOPE FOR DRONE DELIVERIES May 16, 2023 Sally French



2023 has not been good for the tech industry with myriad layoffs, reductions in funding and spending cutbacks. But here's one bright spot for the tech industry, a multi-million-dollar Wingcopter investment.

The money comes from European Investment Bank (EIB), which is handing over €40 million in what's called a 'quasi-equity investment' into Wingcopter. EIB is the long-term lending institution of the European Union owned by its Member States, designed to make long-term finance available for sound investment to contribute towards EU policy goals. More specifically, this EIB investment is backed by the European Commission's InvestEU program under its sustainable infrastructure window.

The money is intended to scale up Wingcopter's electric delivery drones and logistics services particularly in hard-to-reach rural areas. And while Wingcopter intends to operate globally, the €40 million is set to be crucial as the company makes a big growth move this summer in an expansion within Germany. <a href="https://www.thedronegirl.com/2023/05/17/wingcopter-investment-eib/">https://www.thedronegirl.com/2023/05/17/wingcopter-investment-eib/</a>

### U.S. forms team to set strategy on flying air taxis David Shepardson May 16, 2023

WASHINGTON, May 16 (Reuters) - The Biden administration <u>said Tuesday</u> it has formed an interagency team to develop a national strategy relating to advanced air mobility efforts such as flying taxis.





The U.S. Transportation Department said the team includes NASA, Transportation Security Administration, Federal Aviation Administration and Federal Communications Commission.

The FAA earlier this month issued an "updated blueprint" for airspace and other changes to accommodate future air taxis. Last year, it issued a proposal to update its air carrier

definition to add "powered-lift" operations to regulations covering other commercial operations like airlines, charters and air tours.

The FAA said under the blueprint, air taxi operations will begin at a low rate, similar to helicopters, and using existing routes and infrastructure such as helipads and vertiports.

The FAA is separately developing a powered-lift operations rule for certifying pilots and operating requirements to fly eVTOLs. The agency expects to publish the proposal this summer. <a href="https://www.reuters.com/business/autos-transportation/us-forms-team-set-national-strategy-flying-air-taxis-2023-05-16/">https://www.reuters.com/business/autos-transportation/us-forms-team-set-national-strategy-flying-air-taxis-2023-05-16/</a>

### QinetiQ to deliver unique Banshee Jet 80+ target system to US Army May 17, 2023



QinetiQ is to provide the US Army's Threat Systems
Management Office (TSMO) with a uniquely developed
version of its Banshee Jet 80+. Known as the MQM-185B, the
target will help the US Army train for real-world scenarios by
flying the hyper realistic threat targets.

The MQM-185B aerial target combines QinetiQ's innovative technology with the advanced options required by the TSMO to deliver a capability uniquely optimized for the US Army.

Flown in over 40 countries and used during exercises launched from the HMS Prince of Wales aircraft carrier, the Banshee Jet80+ provides the opportunity to run accurate drills by emulating cruise missiles and enemy fast jets which may be faced on mission. The MQM-185B has a maximum altitude of 30,000ft and can also perform low level sea skimming and terrain following, delivering a realistic adversary to train against. The use of the drone targets will be key to the US Army and their allies in improving their defense capabilities as the Banshee is able to emulate a wide variety of in-theatre threats. <a href="https://uasweekly.com/2023/05/17/qinetiq-to-deliver-unique-banshee-jet-80-target-system-to-us-deliver-unique-banshee-jet-80-target-system-to-us-">https://uasweekly.com/2023/05/17/qinetiq-to-deliver-unique-banshee-jet-80-target-system-to-us-</a>



<u>army/?utm\_source=rss&utm\_medium=rss&utm\_campaign=qinetiq-to-deliver-unique-banshee-jet-80-target-system-to-us-army&utm\_term=2023-05-17</u>

### Honeywell's 1-Megawatt Generator to Power Flying Whales' Aircraft May 17, 2023 News



Honeywell's 1-megawatt generator has been selected by FLYING WHALES QUEBEC to supply power for its new hybrid-electric airship, the LCA60T. Both companies signed a contract for the integration and supply of Honeywell's 1-megawatt generator. Based in France and Canada, FLYING WHALES is developing the 200-meter-long vertical

take-off-and-landing aircraft for the heavy load transport market.

The proven high-power density and efficiency of Honeywell's 1-megawatt generator system allows it to integrate smoothly with propulsion and operational systems for piloted or autonomous aircraft. It can also be used as a 1-megawatt motor without modifications for electric propulsion engines. Aboard the LCA60T, the 1-megawatt generator will create a hybrid propulsion system by being integrated with a gearbox and a turbine that uses jet fuel and sustainable aviation fuel. The Honeywell generator will supply electrical power to the electric engines, thereby creating a more efficient and sustainable form of travel — like the way hybrid-electric automobiles function.

The LCA60T is a heavy-duty rigid airship with a 60-tonne payload capacity. It is 200 meters (m) long with a 96m by 8m by 7m high cargo bay supported by 10 non-pressurized helium cells. It is powered by a 4-megawatt hybrid electric propulsion.

https://uasweekly.com/2023/05/17/honeywells-1-megawatt-generator-to-power-flying-whales-lca60t-aircraft/?utm\_source=rss&utm\_medium=rss&utm\_campaign=honeywells-1-megawatt-generator-to-power-flying-whales-lca60t-aircraft&utm\_term=2023-05-17

#### 18May23

# Radiation Surveying: Elios 3 Indoor Inspection Drone Gets New Payload Miriam McNabb May 17, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Indoor drone company <u>Flyability</u>, in partnership with radiation detection leader <u>Mirion</u> <u>Technologies</u>, has announced the launch of a <u>radiation surveying payload for the Elios 3</u> indoor inspection drone.





By integrating the Mirion RDS-32™ radiation survey meter onto Flyability's Elios 3, this new solution lets users map the environment while gathering radiological data to be localized in a high-resolution 3D model of their asset.

With this integration, the Elios 3 is the first commercially available drone capable of remotely operated indoor radiation surveying and localization. It provides nuclear personnel with a safe method of collecting data without entering irradiated areas.



This integration includes a new widget for Elios 3's piloting app, Cockpit, providing the pilot with a live reading of the sensor featuring current dose rate to characterize radiation sources, cumulated dose to allow for radiation planning, and measurement history to visualize measurement trend and search for higher radiation sources. In addition, the live map has been upgraded to

colorize the drone trajectory based on the recorded level of radiation. <a href="https://dronelife.com/wp-content/uploads/2023/05/E3-RAD-3-scaled.jpg">https://dronelife.com/wp-content/uploads/2023/05/E3-RAD-3-scaled.jpg</a>

# Spain invests 500 million euros in Airbus SIRTAP UAS project Aviation Defense News April 2023 25 APRIL 2023



The money earmarked for investment will be divided into eight annual payments between 2023 and 2031. The Sirtap project is financed by Spain and Colombia. Both countries plan to replace the last generation of Israeli-made drones with the latest drones. Spain plans to buy 27 SIRTAPs, and Colombia 18.

Currently, Spain considers purchasing 9 systems, each of which will consist of 3 drones, a ground control station, and data reception equipment. These drones are to replace the Israeli Searcher drones currently used by the Spanish Air Force.

According to Airbus, SIRTAP will provide a performance leap in the high-end tactical UAS segment. Designed to fly under the toughest environmental and operational conditions, the UAS will be certified to fly in segregated airspace and pursue civil operations, all possible with the same platform.

SIRTAP will operate under any weather conditions. It can operate between -40°C to +50°C. With over 20 hours of endurance and flying at an altitude of 21,000 feet and carrying a payload



weighing more than 150 kg, the 750kg tactical UAS is fit for day/night and maritime Intelligence, Surveillance and Reconnaissance missions, providing rapid response for close target inspection. To take off, it needs an 800-meter runway.

https://airrecognition.com/index.php/news/defense-aviation-news/2023-news-aviation-aerospace/april/8983-spain-invests-500-million-euros-in-airbus-sirtap-uas-project.html

# Chinese-made military drones have hidden tech to stop them being used to attack China Minnie Chan 17 May, 2023



Chinese <u>drones</u> are leading the global market, but hidden "watchdog" technology is in place to limit their use in attacks on China.

A source close to <u>the military</u> said all Chinese combat and reconnaissance drones had been designed and developed to recognize an "electric geofence" encircling the borders of China's territory.

The function – included in the implantable components and parts of unmanned aerial vehicles – was declared by Chinese developers in their instruction books, the source said.

The comments appear to confirm claims last year by the head of a leading Turkish drone developer, who told Indian-Canadian website EurAsian Times that Chinese-made UAVs "turned around as they approached the Chinese border".

https://www.scmp.com/news/china/military/article/3220830/built-watchdogs-protect-china-its-own-drones-military-source

### **DOT Wants Public Input on AAM Acceptance in U.S. Skies** Dan Parsons | May 18, 2023



To prepare a blueprint for advanced air mobility (AAM) operations in the U.S., the Department of Transportation is calling for public input on safety challenges and general acceptance of air taxis and other electric aircraft ferrying passengers short distances in the national airspace.

The Department of Transportation is required by law to invite public comment on advanced air mobility under the

Advanced Air Mobility Coordination and Leadership Act passed by Congress in 2022. DOT has formed an interagency working group to gather public comment in preparation for a national



AAM strategy scheduled for publication in 2024, according to a <u>request for information posted</u> <u>in the Federal Register on Wednesday</u>.

DOT already has some idea of how AAM will debut and evolve as a transportation option in the U.S. AAM likely will begin as "piloted flights using traditional air traffic control procedures and existing regulatory structures," the RFI says. The emerging field of transportation currently involves novel aircraft, many of them <u>electric vertical take-off and landing</u> designs, or eVTOLs.

"However, more ubiquitous and economical AAM operations are expected to require development of new technologies, procedures, and regulations that incorporate highly automated, unpiloted aircraft flying at lower altitudes with smaller areas of separation than in current operating environments," according to the RFI.

Members of the public can submit comments to the DOT through July 17 by email at <a href="mailto:AdvAirMobility IWG@dot.gov">AdvAirMobility IWG@dot.gov</a>, through the federal government's <a href="mailto:rulemaking portal">rulemaking portal</a>, or by mail to the U.S. Department of Transportation in Washington, DC.

<a href="https://www.aviationtoday.com/2023/05/18/dot-wants-public-input-on-aam-acceptance-in-u-s-skies/?oly\_enc\_id=7021F0632090D7B">https://www.aviationtoday.com/2023/05/18/dot-wants-public-input-on-aam-acceptance-in-u-s-skies/?oly\_enc\_id=7021F0632090D7B</a>

#### 19May23

### Automated indoor monitoring with Parrot ANAFI Ai drone Ishveena Singh | May 18 2023



Following a technology partnership with Swiss drone automation specialist <u>Tinamu</u>, Parrot's 4G connectivity drone is ready to be leveraged for warehouse inventory management by mining, commodity trading, and construction companies.

Tinamu is a spin-off of the Swiss Federal Institute of Technology Zürich (ETH Zurich). The team's turnkey solution for drone-based inspection automation consists of a dashboard that visualizes relevant information, analytics software running on a secured cloud, and the drone system connected to a communication network.

Tinamu feels that the market need for drone-based indoor monitoring is massive. And that existing automation solutions require high-end expensive hardware, with most service providers focusing on packaged goods warehouses only.



So, as the first application of its indoor monitoring drone innovation, Tinamu decided to focus on end-to-end automated stockpile volume measurement instead. "Industrial companies have been doing this manually on paper for decades and losing billions each year," Tinamu's Denis Libouton tells *DroneDJ*. "We are now active in several locations in Europe and will keep expanding." <a href="https://dronedj.com/2023/05/18/automated-indoor-monitoring-parrot-drone/">https://dronedj.com/2023/05/18/automated-indoor-monitoring-parrot-drone/</a>