



## UAS and SmallSat Weekly News

### Contents

- 2 Mass production facility for electric aircraft to be opened in Vermont
- 2 Could this be the future of local air travel?
- 4 Electric air taxi flights in Los Angeles during the 2028 Summer Olympics?
- 4 SKYDRIVE ACCEPTS PRE-ORDERS FROM PRIVATE INDIVIDUALS
- 5 Yes, that helicopter on Mars still works
- 6 Drone Delivery in New Zealand: SkyDrop Gets CAA Approval
- 7 Merlin \$1 million FAA grant will “allow the first autonomous system integrated into the NAS”
- 7 XWing submits autonomous air cargo UAS certification plan to the FAA
- 8 Med supplies delivered by drone to Tangier Island? It’s possible
- 8 DroneUp testing new hydrogen fuel cell technology for drones
- 9 Blackpink, Björk wow fans with drone shows at Coachella 2023
- 10 JACKAL Drone Completes Successful Trial Firing of Thales Lightweight Multirole Missile
- 10 DJI’s New Inspire 3 Is the World’s Ultimate Cinema Drone
- 11 Amprius to Provide Drone Batteries to AeroVironment: Unparalleled Run Time
- 12 Whisper Aero Targets Defense First for Ultraquiet Electric Propulsion
- 12 American-Made Professional Drone Platform Takes Flight
- 13 Speedbird Aero, UTM Developer High Lander Partner for Global Drone Delivery
- 13 Amazing virtual drone tour of Germany’s Porsche Museum
- 14 DroneShield Receives \$2.2 Million for Next-Generation Portable Counter-UAS Technology
- 15 Propeller Aero to make drone maps more insightful with \$15.35M funding
- 15 Sony Announces Airpeak Upgrades
- 16 SERIOUSLY HUGE DRONES HEADED FOR NEW YORK (LIKE, UP TO 300 POUNDS)
- 17 DroneUp and Doosan Mobility Innovation Testing Hydrogen Fuel Cell Technology for Drones
- 17 United Airlines And Archer Announce First Commercial Electric Air Taxi Route In Chicago
- 18 Integrating Larger Drones: FAA Grants 50-Mile Flight Authority to New York UAS Test Site
- 19 U.S. Marine Corps Selects Leidos for Autonomous Aerial Resupply System Development
- 19 Raytheon Technologies to Develop Counter-UAS Solutions with \$237 Million Contract
- 20 Should Coachella be Using Drones and Digital Twins for Security?



## UAS and SmallSat Weekly News

15Apr23

### Mass production facility for electric aircraft to be opened in Vermont PAUL BRINKMANN | APRIL 5, 2023



Beta Technologies CEO explains the company's step-by-step strategy toward cargo, passenger flights

*This story has been updated to reflect U.S. First Lady Jill Biden's visit to Beta*

*Technologies.*

Beta Technologies is confident enough about its customer base and FAA certification of its electric conventional takeoff and landing plane, the CX300, that it plans to move into its planned South Burlington, Vermont, production facility by June, with an anticipated production start in August for CX300s and the company's vertical lift Alia aircraft.

"The transition our company has made over the last year is moving from a research and development company to a production company," Beta founder and CEO Kyle Clark tells me. "The majority of the work being done here is centered on production certification, quality control systems, supply chain and assembling machinery."

U.S. First Lady Jill Biden and Education Secretary Miguel Cardona [visited](#) Beta's facility on Wednesday afternoon. According to the White House, the visit was to "highlight federal and state investments in high school Career and Technical Education programs related to electric vehicles." Beta says hundreds of people will work in the facility, which is designed to produce up to 300 aircraft a year. [https://aerospaceamerica.aiaa.org/mass-production-facility-for-electric-aircraft-to-be-opened-in-vermont/?utm\\_campaign=AerospaceAmericaAMB&utm\\_medium=email&\\_hsmt=254249896&\\_hsenc=p2ANqtz-wE0aafhFVuWjoyhuWeF7lIV3wftFjqpwblJWHU17oWMDHhPOeDfMn-gs-U-F2NzJyxAaAxxpijtYLR4J3PU1EDuZeyg&utm\\_content=254249896&utm\\_source=hs\\_email](https://aerospaceamerica.aiaa.org/mass-production-facility-for-electric-aircraft-to-be-opened-in-vermont/?utm_campaign=AerospaceAmericaAMB&utm_medium=email&_hsmt=254249896&_hsenc=p2ANqtz-wE0aafhFVuWjoyhuWeF7lIV3wftFjqpwblJWHU17oWMDHhPOeDfMn-gs-U-F2NzJyxAaAxxpijtYLR4J3PU1EDuZeyg&utm_content=254249896&utm_source=hs_email)

### Electric air taxi flights in Los Angeles during the 2028 Summer Olympics? PAUL BRINKMANN | APRIL 13, 2023

Here's who's applauding FAA's "Innovate 28" goal and why



## UAS and SmallSat Weekly News



To leading air taxi entrepreneurs, it's not just nice that FAA has set a goal of certifying the safety of electric air taxis in time for them to fly routes in Los Angeles during the 2028 Summer Olympics. It's a vital part of a strategy for keeping regulators focused.

"Clearly, a lot of pieces have to come together for advanced air mobility to be something that is at a significant scale by 2028," says Eric Allison, the head of product at Joby Aviation of Silicon Valley, widely regarded as one of the best-positioned air taxi developers. "Many of those pieces, if not most, are in the FAA's hands, so to have the FAA leading and talking about this is an awesome bit of foresight."



*Joby Aviation's test aircraft is hauled back to the hangar after an Oct. 13 demonstration flight in Marina, California. Credit: Joby Aviation*

As one of the busiest cities in the world, Los Angeles is "an awesome place to examine and really to understand deeply what the potential market looks like and what the networks look like, and how this mode of transportation can really be a success in this showcase," he says.

Joby is focused on obtaining the certifications it needs for aircraft and operations. "We will be demonstrating initial operations and working with the controllers to figure out how they integrate these vehicles into the system, which is one of the most complicated systems in the world," Allison says.

Rival Archer Aviation, also of Silicon Valley, likewise applauds the FAA goal. "The Olympics are an opportunity to be on the global stage," says Adam Goldstein, founder and CEO of Archer, which plans to have passenger aircraft in operation by 2025.

[https://aerospaceamerica.aiaa.org/electric-air-taxi-flights-in-los-angeles-during-the-2028-summer-olympics/?utm\\_campaign=AerospaceAmericaAMB&utm\\_medium=email&\\_hsmt=254249896&\\_hsenc=p](https://aerospaceamerica.aiaa.org/electric-air-taxi-flights-in-los-angeles-during-the-2028-summer-olympics/?utm_campaign=AerospaceAmericaAMB&utm_medium=email&_hsmt=254249896&_hsenc=p)



## UAS and SmallSat Weekly News

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### Could this be the future of local air travel? PAUL BRINKMANN | APRIL 10, 2023



*Wisk plans to begin passenger service with this air taxi design unveiled in October. The Generation 6 would fly autonomously or be remotely monitored by a human pilot. Credit: Wisk Aero*

Wisk is at least unusual and possibly unique in the emerging electric air taxi industry in that it intends to go right to remotely piloted and largely autonomous aircraft. The company now believes it can earn the required FAA certificates for the design and operation of this aircraft in “the next several years,” after cautioning as recently as last year that such **approvals may take five years to a decade**. Competitors, including Joby Aviation or Beta Technologies, intend to start their air taxi services with a pilot on each aircraft, and eventually move toward more autonomy with remote pilots.

Wisk provided me with much more detail about how operations will work with Gen 6, the tiltrotor electric vertical takeoff and landing aircraft [whose design it unveiled](#) in October.

Wisk doesn’t use the word “pilot” to describe the staff who will monitor these eVTOLs remotely from the ground. It calls them “multivehicle supervisors,” and they will work in a center of operations. One of these supervisors can “potentially alter the flight or communicate with air traffic controllers,” Lovegren explains. [https://aerospaceamerica.aiaa.org/could-this-be-the-future-of-local-air-travel/?utm\\_campaign=AerospaceAmericaAMB&utm\\_medium=email&\\_hsmi=254249896&\\_hsenc=p2ANqtz-9YrHafyR9tOEJalwt4GU8jl-NP4pAeKTXpQ5KVzl2oGtpu8DGngHNO6i59NXk2Y\\_yuY6ybRI0-Vdc1ZDyk33zsbDHJUw&utm\\_content=254249896&utm\\_source=hs\\_email](https://aerospaceamerica.aiaa.org/could-this-be-the-future-of-local-air-travel/?utm_campaign=AerospaceAmericaAMB&utm_medium=email&_hsmi=254249896&_hsenc=p2ANqtz-9YrHafyR9tOEJalwt4GU8jl-NP4pAeKTXpQ5KVzl2oGtpu8DGngHNO6i59NXk2Y_yuY6ybRI0-Vdc1ZDyk33zsbDHJUw&utm_content=254249896&utm_source=hs_email)

### SKYDRIVE ACCEPTS PRE-ORDERS FROM PRIVATE INDIVIDUALS BORIS SEDACCA 13 APRIL 2023

SkyDrive today announced that it is now accepting pre-orders for its eVTOL aircraft SD-05 for personal use, with Kotaro Chiba, a licensed pilot and the first owner of a HondaJet in Japan, becoming the first private customer for the SkyDrive SD-05.

SkyDrive has developed its business-to-business pre-order sales since it unveiled the design of the SD-05 in September 2022. Today, SkyDrive also reports that the Vietnamese developer



## UAS and SmallSat Weekly News

Pacific Group agreed to pre-order up to **100 SD-05 aircraft**, with ten confirmed pre-orders and 90 conditional pre-order options.

Having received numerous inquiries from individuals expressing interest in acquiring the SD-05, SkyDrive agreed to open pre-order sales to the general public. Chiba, co-founder and managing partner of **Drone Fund**, became the first shareholder of SkyDrive in November 2018.



Drone Fund is a venture capital firm that focuses on drone technology and the advanced air mobility (AAM) industry. Chiba is an ‘angel investor’ with over 60 start-ups as well as 50 venture capital funds experience.

Chiba said: “In 2018, I was captivated by SkyDrive’s vision of the future and its innovative aircraft and upon seeing the company’s first prototype, I enthusiastically made the decision to invest in SkyDrive.”



Tomohiro Fukuzawa, founder & CEO of SkyDrive, said: “As we aim to create a future where everyone has access to eVTOLs as their daily transportation, we understand that it is important that we have an option for individuals to own their aircraft.” <https://evtolinsights.com/2023/04/skydrive-accepts-pre-orders-from-private-individuals/>

## Yes, that helicopter on Mars still works Austin DeSisto - Apr. 14th 2023



On April 19, 2021, the Ingenuity helicopter earned the title of the **first powered flight on another planet**. Nearly two years later, the helicopter completed its **50th flight on Mars**. Was this longevity expected?

This most recent flight was mainly a relocation of the rotorcraft which positioned it on the opposite side of a ridgeline from Perseverance. As a result, there was a delay in getting confirmation of a successful flight. Each flight, whether for scientific imaging or not, is aimed at **keeping Ingenuity ahead of the rover** as it conducts science of its own. Step one was [landing Perseverance successfully on Mars](#), which occurred on February 18, 2021. Two months later, NASA would attempt the first flight of Ingenuity.



## UAS and SmallSat Weekly News



Ingenuity was originally planned to complete five flights as part of its technology demonstration. Its most recent flight officially marks ten times the number of expected flights.

As of 50 flights, Ingenuity has completed one hour, 29 minutes, and 12 seconds of time in the air. During this time, the rotorcraft has covered 7.2 mi in ground distance and flown to a maximum altitude of 59.1 ft.

During flight 49 earlier this month, Ingenuity completed its longest flight ever and broke a new speed record. It reached a top speed of 14.5 mph. The goal of this flight was to relocate the rotorcraft and image science targets. Flight 50 included a new altitude record of 59.1 ft.

<https://spaceexplored.com/2023/04/14/yes-that-helicopter-on-mars-still-works/#more-92433>

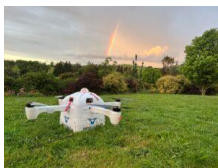
**Drone Delivery in New Zealand: SkyDrop Gets CAA Approval** Miriam McNabb April 14, 2023 by DRONELIFE Staff Writer Ian M. Crosby



[SkyDrop](#) (formerly Flirtey) has been granted approval from New Zealand's Civil Aviation Authority (CAA) to launch its first drone hub in Huntly, New Zealand. This positions SkyDrop as **the first** company in New Zealand to obtain approval for live store to door drone delivery, which also covers certain beyond visual line of sight operations.

SkyDrop creates aircraft, supporting software and launch platforms to provide customers around the globe with drone delivery solutions. With the new approval, the company will be able to launch its first drone hub in Huntly, opening up access to a reliable stream of revenue.

The approval was granted by the CAA following a comprehensive review of SkyDrop's technology and operating procedures and after years of extensive testing conducted in both **the United States and New Zealand**. The process was aided by SkyDrop's leading safety technology, featuring **an onboard Parachute Recovery System** reviewed by the CAA.



In addition to the CAA, SkyDrop has also received approvals from Waikato District Council after meeting with local stakeholders in Raahui Pookeka (Huntly) including the Waahi Paa, who named a SkyDrop drone Te Kaahu (The Hawk). <https://dronelife.com/2023/04/14/drone-delivery-in-new-zealand-skydrop-gets-caa-approval/>

**17Apr23**



## UAS and SmallSat Weekly News

### Merlin \$1 million FAA grant will “allow the first autonomous system integrated into the NAS” April 12, 2023 Philip Butterworth-Hayes UAS traffic management news



The Federal Aviation Administration (FAA) has awarded [Merlin](#) a \$1 million contract to demonstrate a highly automated flight control system **in conjunction with a safety pilot**. In partnership with the FAA designated University of Fairbanks UAS Test Site and Everts Air Cargo, “the Merlin Pilot will be **the first** autonomy system integrated into the NAS,” said a press release. “Flight trials will run along three test routes serving five destinations. All test routes originate from the FAA designated **UAS Alaska test site** in Q2 2023.”

Last year, Merlin announced a [\\$105 million Series B](#) financing along with key partnerships with the United States Air Force, the New Zealand Civil Aviation Authority, and the FAA. The funding has allowed Merlin to continue developing its integrated hardware and software solution known as the Merlin Pilot.

“Alaska’s terrain and inclement weather can challenge the most experienced pilots. And yet remote communities rely on air cargo deliveries for vital supplies such as milk, mail, and medicine. Working with Merlin on these flight trials benefits our residents and provides data with each flight that will create not only a safer airspace in Alaska but technology that is applicable worldwide,” said Dr. Cathy Cahill, Director of the Alaska Center for Unmanned Aircraft Systems Integration at the UAF Geophysical Institute.

<https://www.unmannedairspace.info/uncategorized/merlin-usd1-million-faa-grant-will-allow-for-the-first-autonomy-system-integrated-into-the-nas/>

### XWing submits autonomous air cargo UAS certification plan to the FAA April 13, 2023 Philip Butterworth-Hayes



Autonomous aviation company Xwing has submitted a Project Specific Certification Plan (PSCP) to the Federal Aviation Administration (FAA), “becoming **the first Standard Category large unmanned aerial system** (UAS) to receive official project designation. This marks the beginning of the process for approval of uncrewed commercial cargo operations in the national airspace,” according to the company.

“Unlike other aviation projects that focus on augmenting piloted operations with autonomous technology or have Special Category certification, Xwing’s Superpilot technology integrates into



## UAS and SmallSat Weekly News

existing type certified aircraft to enable uncrewed operations that work within the existing air traffic control system. Superpilot harnesses advanced AI and machine learning technologies to become **the world's first fully autonomous gate-to-gate flight technology**.

“The company’s PSCP submission is the result of years of collaboration between Xwing and FAA officials to develop a certification plan for UAS approval. With project designation, Xwing is now on a recognized path toward regulatory approval for uncrewed commercial cargo flights.

<https://www.unmannedairspace.info/uncategorized/xwing-submits-autonomous-air-cargo-uas-certification-plan-to-the-faa/>

**Med supplies delivered by drone to Tangier Island? It's possible** MARCH 31, 2023 BY CAROL VAUGHN, Eastern Shore Post —



Imagine having medical supplies delivered in a flash to homes on Tangier Island — in the middle of the Chesapeake Bay — on small, person less aircraft. The concept is on its way to becoming reality.

Nearly \$1.9 million in federal funding will go toward planning and prototyping the first phase of a drone project to deliver medical supplies around the Eastern Shore, including to Tangier.

U.S. Senators Mark Warner and Tim Kaine announced the money was awarded to the Accomack-Northampton Planning District Commission through the Department of Transportation’s Strengthening Mobility and Revolutionizing Transportation (SMART) grant program. The grant program was established through the Bipartisan Infrastructure Law passed by Congress.

Partners with the A-NPDC on the project include **Riverside Health System, DroneUp, and Old Dominion University**, according to a press release from the senators.

<https://easternshorepost.com/2023/03/31/med-supplies-delivered-by-drone-to-tangier-island-its-possible/>

**DroneUp testing new hydrogen fuel cell technology for drones** Ishveena Singh - Apr. 17th 2023



DroneUp, the drone delivery company that Walmart is using, says it plans to test new hydrogen fuel cell technology that has





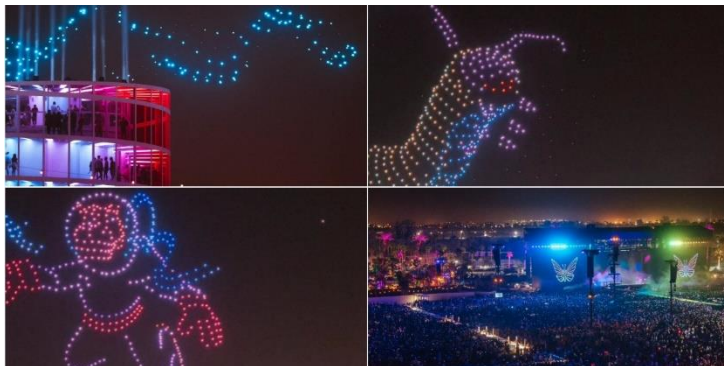
## UAS and SmallSat Weekly News

the potential to increase a drone's flight time to **two to five hours**.

This fuel cell technology has been developed by South Korea's Doosan Mobility Innovation (DMI), which is also building one of the first-ever open-source, hydrogen-fuel-cell powered [motorcycles](#) in collaboration with the Massachusetts Institute of Technology's Electric Vehicle Team. According to DroneUp, the collaboration with DMI has been underway since October 2022 and is focused on testing and optimizing a system suitable for scalable drone operations.

In addition to gauging the increase in flight time in its tests, DroneUp also plans to focus on the environmental sustainability benefits of using hydrogen. The tech should basically **reduce carbon emissions to "zero,"** with the only by-product created from the battery technology being drops of water. <https://dronedj.com/2023/04/17/droneup-doosan-hydrogen-cell-drones/#more-92444>

**Blackpink, Björk wow fans with drone shows at Coachella 2023** Ishveena Singh - Apr. 17th 2023



The 2023 edition of Coachella has already made its mark in history for featuring the most diverse and inclusive artist lineup yet for the music festival. But we at *DroneDJ* will remember Coachella 2023 as one where iconic Korean girl group Blackpink and eclectic Icelandic singer Björk turned to drone light shows to

make their sets even more unique and unforgettable.

Blackpink, which is headlining Coachella 2023, roped in drone show specialist SKYMAGIC to light up the main stage with 500 LED-equipped drones.

The Singapore-based company put on an eight-minute spectacle for **its US debut show**, beginning with the Coachella Ferris wheel and celebrating precious art installations from previous editions, including the spaceman and the butterfly.

<https://dronedj.com/2023/04/17/coachella-drone-show-blackpink-bjork/#more-92447>



## UAS and SmallSat Weekly News

### JACKAL Drone Completes Successful Trial Firing of Thales Lightweight Multirole

**Missile** April 17, 2023 Military | News



Flyby Technology, a UK-based drone developer, along with Turkish partners FlyBVLOS Technology and Maxwell Innovations, has successfully completed the first trial firing of a Thales Lightweight Multirole Missile (LMM) using its JACKAL drone system.

During the six-week trial, Flyby and Thales teams were able to build two operational JACKAL aircraft and successfully fire two LMMs in an impressive demonstration of agile teamwork. As a plug-and-play system, new equipment and technologies can be incorporated into JACKAL between missions as well as during continued development.

Flyby Technology CEO Jon Parker is a former RAF and Royal Navy fighter pilot, and he and his team have brought many years of operational experience to bear in the design. The company says that JACKAL can give nations the same effect as attack helicopters and modern fighter jets **with little risk at a fraction of the price.**

Flyby Technology is a UK-based drone developer that has brought together warfighting expertise with rapid prototyping and drone building expertise to develop the JACKAL drone system. [https://uasweekly.com/2023/04/17/jackal-drone-completes-successful-trial-firing-of-thales-lightweight-multirole-missile-lmm/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=jackal-drone-completes-successful-trial-firing-of-thales-lightweight-multirole-missile-lmm&utm\\_term=2023-04-17](https://uasweekly.com/2023/04/17/jackal-drone-completes-successful-trial-firing-of-thales-lightweight-multirole-missile-lmm/?utm_source=rss&utm_medium=rss&utm_campaign=jackal-drone-completes-successful-trial-firing-of-thales-lightweight-multirole-missile-lmm&utm_term=2023-04-17)

### DJI's New Inspire 3 Is the World's Ultimate Cinema Drone

 April 16, 2023 News

DJI, the world's leader in civilian drones and creative camera technology, today sets **a new standard** for cinematic-grade aerial filming systems with the all-in-one DJI Inspire 3, a streamlined, precise, full-frame 8K cinema drone to meet the needs of top-level movie productions.

Its sleek integrated design, a 161° ultra-wide FOV night-vision FPV and the O3 Pro transmission and control system offer the best-in-class flight performance and a full pro ecosystem that can be integrated into the biggest film sets seamlessly. The Inspire 3 is DJI's only cinema-grade



## UAS and SmallSat Weekly News

drone, that supports both RTK-powered Waypoint Pro and omnidirectional sensing to perform flight missions more safely and with higher precision than ever before.

“The Inspire 3 is the professional-level aerial platform all filmmakers have been waiting for,” said Ferdinand Wolf, Creative Director at DJI. “It empowers users to fully maximize the potential of any shot as they can record in cinematic-grade image quality previously only available with large and clunky camera systems. We are looking forward to seeing how the Inspire 3 will push aerial cinematography to a completely new level.”

[https://uasweekly.com/2023/04/16/djis-new-inspire-3-is-the-worlds-ultimate-cinema-drone/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=djis-new-inspire-3-is-the-worlds-ultimate-cinema-drone&utm\\_term=2023-04-17](https://uasweekly.com/2023/04/16/djis-new-inspire-3-is-the-worlds-ultimate-cinema-drone/?utm_source=rss&utm_medium=rss&utm_campaign=djis-new-inspire-3-is-the-worlds-ultimate-cinema-drone&utm_term=2023-04-17)

**18Apr23**

### **Amprius to Provide Drone Batteries to AeroVironment: Unparalleled Run**

**Time** Miriam McNabb April 17, 2023



DRONELIFE first heard about [Amprius Technologies, Inc.](#) (NYSE: AMPX) at [Commercial UAV Expo](#) last year. Amprius manufactures next-generation lightweight lithium-ion batteries with its Silicon Anode Platform. The company’s proprietary anode technology enables the production of battery cells with energy density levels approaching twice the performance of current commercially available graphite cells.

The company has had a big win, providing a commercial level shipment of Amprius drone batteries to [AeroVironment](#) (NASDAQ: AVAV) for the Switchblade 300 Block 20 loitering missile system. Also called the “suicide drone,” the Switchblade 300 could prove the case for putting Amprius batteries in more commercial drone platforms.

The Amprius lightweight, high energy density lithium-ion battery cells are expected to increase the flight time of the new Switchblade by **at least 50%**, for longer flight endurance and extended loitering capability. <https://dronelife.com/2023/04/17/amprius-to-provide-next-generation-drone-batteries-to-aerovironment-unparalleled-run-time/>



## UAS and SmallSat Weekly News

### Whisper Aero Targets Defense First for Ultraquiet Electric Propulsion Graham

Warwick April 18, 2023



*Whisper's ultraquiet 55-lb. ISR drone has a single top-mounted 10-lb.-thrust electric ducted fan.*

Electric aviation is in its infancy, equivalent to the piston era of a century ago. But propulsion startup Whisper Aero is already working to enable the transition from the propeller age to the jet age by developing ultraquiet,

ultraefficient electric ducted fans.

Based in Crossville, Tennessee, Whisper Aero has raised **\$32 million** in Series A funding to grow its team and launch production, initially targeting U.S. Defense Department applications such as intelligence, surveillance, and reconnaissance uncrewed aircraft that are inaudible from the ground.

The startup has validated its technology with flights of a custom-designed 55-lb. ISR drone powered by a single 10-lb.-thrust demonstrator propulsor. Flying over at about 200 ft., the Whisper drone **could not be acoustically detected** by a ground observer but the 2-lb. multicopter chase drone could clearly be heard at the same altitude, the company says.

<https://aviationweek.com/aerospace/emerging-technologies/whisper-aero-targets-defense-first-ultraquiet-electric-propulsion>

### American-Made Professional Drone Platform Takes Flight Phoebe Grinter / 13 Apr

2023



Carlson Software has released the American-made Carlson Aerial Platform (CAP50) UAS, offering up to **6 lbs.** of payload capacity for surveying, construction, engineering, mining, quarry, and mapping applications.

Featuring multiple payload options for photogrammetry, LiDAR, and bathymetry, the CAP50 has a **22-minute flight time with a 5lbs payload** and has been tested against 50mph winds with maximum payload. The onboard omnidirectional collision avoidance system is LiDAR range finder-based and works in both day and night conditions.



## UAS and SmallSat Weekly News

“We wanted to offer a **US-made drone** to anyone in search of a US-made option,” said Derek Roche, Carlson Product Manager and Sales Director. “With regulations against foreign drones flying in government airspace, the CAP50 is more than capable and stands out from other options on the market in terms of capability, quality, and durability.”

[https://www.unmannedsystemstechnology.com/2023/04/american-made-professional-drone-platform-takes-flight/?utm\\_source=UST+eBrief&utm\\_campaign=a262ddf00a-ust-ebrief\\_2023-apr-18&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-a262ddf00a-111778317&mc\\_cid=a262ddf00a&mc\\_eid=acabe18a61](https://www.unmannedsystemstechnology.com/2023/04/american-made-professional-drone-platform-takes-flight/?utm_source=UST+eBrief&utm_campaign=a262ddf00a-ust-ebrief_2023-apr-18&utm_medium=email&utm_term=0_6fc3c01e8d-a262ddf00a-111778317&mc_cid=a262ddf00a&mc_eid=acabe18a61)

**19Apr23**

### **Speedbird Aero, UTM Developer High Lander Partner for Global Drone Delivery**

Miriam McNabb April 18, 2023 by DRONELIFE Staff Writer Ian M. Crosby



**Brazilian** drone delivery company [Speedbird Aero](#) and **Israeli** uncrewed traffic management (UTM) developer [High Lander](#) have signed a Memorandum of Understanding that will increase the safety and efficiency of drone-based deliveries while enabling future partnerships and collaborations worldwide. Both companies offer field-tested

drones and airspace management solutions. With the use of High Lander’s Universal UTM, Speedbird Aero will guarantee the safety and efficiency of its flight operations while proving to regulators that total oversight of uncrewed aerial activity is attainable.

The partnership will also establish a strategic foundation for a consortium of aviation businesses across Latin America. The two companies are in contact with stakeholders such as the Brazilian Association of Civil Aviation Pilots (ABRAPAC), the Brazilian National Civil Aviation Agency (ANAC), the Brazilian Department of Airspace Control (DECEA), Embraer, Saipher, and others. <https://dronelife.com/2023/04/18/speedbird-aero-utm-developer-high-lander-partner-to-increase-safety-and-efficiency-of-global-drone-delivery/>

### **Amazing virtual drone tour of Germany’s Porsche Museum** Ishveena Singh - Apr. 18th 2023

An epitome of understated elegance, the Porsche Museum in Stuttgart, Germany, is a must-visit destination for auto enthusiasts. But if you haven’t had the chance to make a trip there in person, why not take a virtual drone tour of the place right here, right now, and see the



## UAS and SmallSat Weekly News

stunning machinery on display? Be warned, though – it’s only going to whet your appetite for all things Porsche!



Drone maker DJI recently approached Porsche to see if they could fly the [Avata](#) through the museum full of historic (and expensive) cars.

The Avata is a [palm-sized FPV drone](#) that promises the ultimate immersive flight experience right out of the box. In DJI’s own words, “Avata is designed to fit through tight spaces and capture the kind of shots that make you go wow!”

Perhaps it’s these credentials that got Porsche to agree to the collab, and the rest, as they say, is history. **Take the tour:** <https://dronedj.com/2023/04/18/porsche-museum-drone-dji-avata/#more-92464>

## DroneShield Receives \$2.2 Million for Next-Generation Portable Counter-UAS Technology

April 18, 2023 Counter UAS



DroneShield Ltd (ASX:DRO), a leading provider of counter-drone solutions, has announced that it has received two orders totaling approximately \$2.2 million from the U.S. Department of Defense and another U.S. federal government agency. The orders include several DroneShield’s handheld systems, including the recently launched DroneGun Mk4 portable drone countermeasure product.

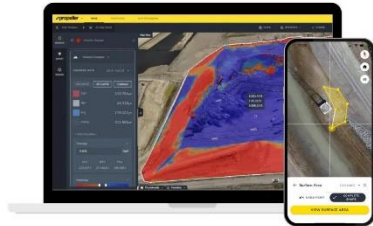
Payments for both orders are expected to be received in the third quarter of 2023, following delivery. Commenting on the orders, DroneShield’s U.S. CEO, Matt McCrann, stated, “We’re proud to support these groups and their requirements, and to continue to build the relationship and problem solve with them. [https://uasweekly.com/2023/04/18/droneshield-receives-2-2-million-in-funding-for-next-generation-portable-counter-uas-technology/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=droneshield-receives-2-2-million-in-funding-for-next-generation-portable-counter-uas-technology&utm\\_term=2023-04-19](https://uasweekly.com/2023/04/18/droneshield-receives-2-2-million-in-funding-for-next-generation-portable-counter-uas-technology/?utm_source=rss&utm_medium=rss&utm_campaign=droneshield-receives-2-2-million-in-funding-for-next-generation-portable-counter-uas-technology&utm_term=2023-04-19)



## UAS and SmallSat Weekly News

### Propeller Aero to make drone maps more insightful with \$15.35M funding

Ishveena Singh | Apr 19 2023



Drone mapping and surveying software specialist Propeller Aero says it has scooped up \$15.35 million in fresh funding from new and existing investors. The round was led by VC firms and longtime Propeller supporters, Blackbird and Costanoa, with additional investments coming from Australian industry fund Aware Super, Canva founder Cliff Obrecht, and

serial entrepreneur Leigh Jasper.

Founded in 2014, Propeller Aero is an Aussie drone startup with more than 200 employees. The team caters to over 15,000 civil and construction worksites around the world each month.

Known for its accuracy and impressive processing turnaround time, the company has recently launched a [mobile app](#) to bring maps to the field and also expanded its presence in Europe. The drone tech company [explains](#) in a blog post, “While our core product is drone mapping software, there’s a new (smarter) worksite collaboration workflow that emerges when you combine survey data and maps. The recent funding will help us bring more insights to the map to create a digital meeting ground for project teams — a category of technology we’re dubbing smart surveys.” <https://dronedj.com/2023/04/19/propeller-aero-15-million-funding/>

20Apr2

**Sony Announces Airpeak Upgrades** Miriam McNabb April 19, 2023 by DRONELIFE Staff Writer  
Ian M. Crosby



These upgrades include an RTK Kit, an advanced gimbal, and an improved battery.

The Real Time Kinematic (RTK) Kit enables the Airpeak S1 to achieve precise positioning and navigation without lag, resulting in a stable flight path and collection of precise data. The kit utilizes a base station that receives satellite signals from the Global Navigation Satellite System (GNSS), as well as an Airpeak mounted receiver using those signals to deduce its position. Comparing signals from multiple GNSS satellites allows the system to determine Airpeak’s precise location, velocity, and orientation, granting centimeter-level accuracy in positioning. Its geotagging



## UAS and SmallSat Weekly News

feature can sync image and mapping data. The system can alternatively be connected to the internet to access a GNSS correction data service.

This new model is more than 40% lighter than the Gremsy Gimbal T3 for Airpeak. The PX1 is compatible with full-size mirrorless interchangeable lens  $\alpha$  cameras including Sony's A7R V, A7R IV, or the A7R IVA cameras, and supports lenses like the Zeiss 35mm F2.8, the 24mm F2.8G, 40mm F2.5 G, or the 50 F2.5 G. In combination with the RTK Kit, via Hot Shoe Cable, PX1 can more accurately record positioning and log orientation to capture vital data. It also pairs with Airpeak and the Flight app using the remote controller, enabling remote control of the gimbal's movements and precise adjustment of camera settings. <https://dronelife.com/2023/04/19/sony-announces-airpeak-upgrades-including-rtk-kit/>

## SERIOUSLY HUGE DRONES HEADED FOR NEW YORK (LIKE, UP TO 300 POUNDS) April 19, 2023 Sally French



Most of the drones everyday folks think of weigh less than 55 pounds. But now, heavyweight drones (at least those up to 300 pounds) are welcome to the party. Yes, you read that right — 300 pounds.

The Federal Aviation Administration's Small Unmanned Aircraft System Rule (officially titled 14 CFR part 107) is only applicable to unmanned aircraft that weigh less than 55 pounds at takeoff. It's relatively easy to get a [drone pilot's license](#) to operate drones under 55 pounds and — save for what is relatively few exceptions [like restricted airspace](#) — drones under the 55-pound threshold can generally be legally flown in the U.S.

For drones any larger than that, it gets a lot more complicated. Some commercial operations may apply for a [49 U.S.C 44807 Grant of exemption](#). You might apply for special airworthiness certificates in the experimental category, generally by using [FAA Form 8130-7](#). Or you might head to the New York Uncrewed Aircraft Systems Test Site at Griffiss International Airport. As of spring 2023, the test site can now operate drones weighing under 300 pounds throughout [New York's 50-mile drone corridor](#).

300 pounds opens the door for drones to carry bigger payloads. It also allows engineers to include features that make drones more robust, such as more powerful engines, bigger batteries, performance-improving systems like oil coolers, and more.

<https://www.thedronegirl.com/2023/04/20/300-pounds-drones-new-york-nuair/>





## UAS and SmallSat Weekly News

### DroneUp and Doosan Mobility Innovation Testing Hydrogen Fuel Cell

**Technology for Drones** APRIL 18, 2023 Commercial UAV News Staff



[DroneUp, LLC](#), a leading autonomous drone delivery platform and drone services provider, [announced](#) that it has agreed to test new hydrogen fuel cell technology created by Doosan Mobility Innovation (DMI), a South Korean based company. The DMI and DroneUp agreement was first initiated in October 2022 and is focused on testing and optimizing a reliable system suitable for scalable operational needs.

DMI is a world leader in designing and developing hydrogen fuel power systems for small Uncrewed Aerial Systems. DMI's hydrogen fuel cell technology yields 3-to-1 energy density characteristics when compared to lithium battery powered drones. This new technology greatly time increases **drone flight to 2-5 hours**, depending on several factors like payload weight and weather. In addition to the increased flight time, the new hydrogen technology being tested also has environmental sustainability benefits. Carbon emissions are reduced to "zero" and the only by-product created from the battery technology is drops of water. [https://www.commercialuavnews.com/international/droneup-and-doosan-mobility-innovation-testing-new-hydrogen-fuel-cell-technology-for-drones?mkt\\_tok=NzU2LUZXSj0wNjEAAAGLPs3RwNMECwhazc\\_sDMQH5XV2gNuTXQJhHpiweQGxm-RYigNdHOYDqE9hEqvE3fPDsx0JLdyb0JaVHuYghN-CSINUY2TXiBurikpJFlzDaQCBIrM](https://www.commercialuavnews.com/international/droneup-and-doosan-mobility-innovation-testing-new-hydrogen-fuel-cell-technology-for-drones?mkt_tok=NzU2LUZXSj0wNjEAAAGLPs3RwNMECwhazc_sDMQH5XV2gNuTXQJhHpiweQGxm-RYigNdHOYDqE9hEqvE3fPDsx0JLdyb0JaVHuYghN-CSINUY2TXiBurikpJFlzDaQCBIrM)

### United Airlines And Archer Announce First Commercial Electric Air Taxi Route In Chicago

Commercial UAV News Staff APRIL 17, 2023



Archer Aviation Inc. and United Airlines [announced](#) plans to launch the first air taxi route in Chicago, between O'Hare International Airport (ORD) and Vertiport Chicago. Vertiport Chicago, North America's largest vertical aircraft take-off and landing facility, is located in the Illinois Medical District near the Chicago Loop. This site was

selected as the takeoff and landing site for this airport to city center route because of its unparalleled convenience, access, and service. From there, passengers will be able to travel to and from ORD via Archer's Midnight aircraft in approximately **10 minutes**. A similar trip by car can take upwards of **an hour or more** during rush hour traffic.



## UAS and SmallSat Weekly News

United and Archer's goal for its UAM network is to provide residents and visitors in the Chicago Metropolitan Area with a safe, sustainable, low noise, and cost-competitive alternative to ground transportation beginning in 2025. Chicago is the third most populous city in the United States, a center for business, innovation and investment, and home to United's headquarters. This makes it a unique city for Archer and United to build out. The early launch routes will focus in on airport to city center transportation service, which are referred to as "trunk" routes. Once the trunk routes have been established, the next step will be to build out "branch" routes to connect to surrounding communities. [https://www.commercialuavnews.com/united-airlines-and-archer-announce-first-commercial-electric-air-taxi-route-in-chicago?mkt\\_tok=NzU2LUZXSioWnJEAAAGLPs3RvzMFuplxv0bWwcXWuleZ3ngPCpjBHB7gUs4lpL57VzYNIwzw-vs73elju1Cv871qn0QB1FT\\_rO4SgJ-s9vf6\\_CTckX2eojL4IZ2ZRkUZmog](https://www.commercialuavnews.com/united-airlines-and-archer-announce-first-commercial-electric-air-taxi-route-in-chicago?mkt_tok=NzU2LUZXSioWnJEAAAGLPs3RvzMFuplxv0bWwcXWuleZ3ngPCpjBHB7gUs4lpL57VzYNIwzw-vs73elju1Cv871qn0QB1FT_rO4SgJ-s9vf6_CTckX2eojL4IZ2ZRkUZmog)

## Integrating Larger Drones: FAA Grants 50-Mile Flight Authority to New York UAS Test Site

Scott Howe, April 19, 2023



Last month, the FAA granted the [Oneida County UAS Test Site](#) the authority to operate large drones throughout its 50-mile flight corridor from [Griffiss International Airport](#) in Rome, NY to Syracuse, NY. The [announcement](#) is yet another step forward for the integration of larger, heavier uncrewed vehicles into our airways.

Commenting on the announcement, Oneida County Executive Anthony J. Picente Jr. said, "This new FAA designation removes some previous restrictions making it easier to test larger drones. Our test site is already the global leader for UAS research and development, and now, we will be able to test more advanced operations and be financially compensated for it."

The test site received authority from the FAA through what is known as a "Charlie Waiver." Specifically, this waiver gives the test site the ability to conduct flight tests of "platforms, systems, concepts of operation and other capabilities on drones up to 300 pounds."

In announcing the Oneida County UAS Test Site waiver, a spokesperson for the FAA stated, "The significance of the Charlie waiver is that it will enable the FAA-designated UAS test sites' qualified customers to conduct flight-testing with drones weighing under 300 pounds in an accelerated manner. [https://www.commercialuavnews.com/regulations/integrating-larger-drones-in-the-airspace-faa-grants-50-mile-flight-authority-to-new-york-uas-test-site?mkt\\_tok=NzU2LUZXSioWnJEAAAGLPs3Rv9yfO8cC0hYOCvyoaiHkI1mebbqyD2YIZc4kzboyEtXRCIDBmLkt8MmsW32x9ErsxJVxovnFeLWJ5ZEu775sK\\_8EJEOfk42aJW9UDYe9I2Y](https://www.commercialuavnews.com/regulations/integrating-larger-drones-in-the-airspace-faa-grants-50-mile-flight-authority-to-new-york-uas-test-site?mkt_tok=NzU2LUZXSioWnJEAAAGLPs3Rv9yfO8cC0hYOCvyoaiHkI1mebbqyD2YIZc4kzboyEtXRCIDBmLkt8MmsW32x9ErsxJVxovnFeLWJ5ZEu775sK_8EJEOfk42aJW9UDYe9I2Y)



## UAS and SmallSat Weekly News

### U.S. Marine Corps Selects Leidos for Autonomous Aerial Resupply System

**Development** April 19, 2023 Military | News



Leidos, a leading science and technology company, has been awarded a new prime contract to develop an innovative uncrewed aircraft system (UAS) capable of **autonomously** resupplying forward-deployed ground forces. The contract is firm-fixed-price, multiple-award, and has a period of performance of 18 months to build a single prototype for the Marine Corps.

Under this contract, Leidos will design, develop, deliver, and demonstrate an autonomous medium unmanned logistics system prototype. The prototype will then be used to perform a logistics distribution mission at the tactical edge of the battlefield. The goal of the project is to demonstrate a prototype UAS that can carry a logistics payload between **300 and 600 pounds** to a combat area with a radius of **25 to 100 nautical miles**. The work will be performed at locations in Colorado, Ohio, Oregon, California, Nevada, and Arizona.

Leidos has partnered with Phenix Solutions to design the SeaOnyx prototype. Phenix Solutions is a non-traditional, veteran-owned small business defense contractor that develops UAS aircraft for various missions. [https://uasweekly.com/2023/04/19/u-s-marine-corps-selects-leidos-for-autonomous-aerial-resupply-system-development/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=u-s-marine-corps-selects-leidos-for-autonomous-aerial-resupply-system-development&utm\\_term=2023-04-20](https://uasweekly.com/2023/04/19/u-s-marine-corps-selects-leidos-for-autonomous-aerial-resupply-system-development/?utm_source=rss&utm_medium=rss&utm_campaign=u-s-marine-corps-selects-leidos-for-autonomous-aerial-resupply-system-development&utm_term=2023-04-20)

### Raytheon Technologies to Develop Counter-UAS Solutions with \$237 Million

**Contract** April 19, 2023 Counter UAS



Raytheon Technologies (NYSE: RTX) has been awarded a significant \$237 million U.S. Army contract for the development and deployment of advanced Ku-band Radio Frequency Sensors (KuRFS) and Coyote® effectors. The contract includes both fixed-site and mobile systems, as well as a quantity of effectors, designated to support the Army's U.S Central Command operations. These systems will be an integral part of the U.S. Army's Low, Slow, Small-Unmanned Aircraft Integrated Defeat System, commonly referred to as LIDS.



## UAS and SmallSat Weekly News

KuRFS provides advanced 360-degree threat detection, and the Coyote low-cost effectors deliver precise and effective defeat capabilities against drones.

The KuRFS precision targeting radar and the scaled Ku720 mobile sensing radar deliver persistent detection, identification, and tracking of airborne threats. The Coyote Block 2 defeats single drones and swarms varying in size and maneuverability and at higher altitudes and longer ranges than similar class systems. [https://uasweekly.com/2023/04/19/raytheon-technologies-to-develop-counter-uas-solutions-with-237-million-contract/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=raytheon-technologies-to-develop-counter-uas-solutions-with-237-million-contract&utm\\_term=2023-04-20](https://uasweekly.com/2023/04/19/raytheon-technologies-to-develop-counter-uas-solutions-with-237-million-contract/?utm_source=rss&utm_medium=rss&utm_campaign=raytheon-technologies-to-develop-counter-uas-solutions-with-237-million-contract&utm_term=2023-04-20)

**21Apr23**

### **Should Coachella be Using Drones and Digital Twins for Security?** Miriam

McNabb April 20, 2023 guest post by Nilson Kufus, Co-Founder & CEO of digital twin and 3D model platform Nomoko



Coachella Valley Music and Arts festival began on April 14th, when over a quarter million people descended on the desert of Indio, California. Event organizers for festivals of this scale need to make strong considerations when it comes to security preparations. Crowd control issues that could have been prevented

have led to tragedies at festivals in the past. Less than two years ago, ten young fans were killed in the crowd at Astroworld Festival in Houston, Texas, with hundreds more injured. Astroworld had only a fraction of fans in attendance, compared to Coachella.

The advancement of drone usage has assisted in increasing safety measures by creating digital twins of large-scale spaces. This technology can create a digital twin for a space, such as Empire Polo Club, where Coachella is hosted. Digital twins can be made in advance of events to fully map out the space and assess any issues ahead of time. They are multifunctional and created for a vast range of uses including urban planning, real estate, mapping, media and entertainment, and security. <https://dronelife.com/2023/04/20/should-coachella-be-using-drones-and-digital-twins-for-security-the-new-standard-in-event-management/>