



UAS and SmallSat Weekly News

Contents

- 2 DARPA wants to refuel drones in flight – wirelessly
- 2 Asylon Receives First-of-Their-Kind BVLOS Waivers for Automated Security Drone System
- 3 Unjammable GPS system successfully tested on DeltaQuad VTOL UAV
- 4 Ireland to deploy drones to battle sea-based drug smuggling
- 5 Asylon Scores BVLOS Waiver for Automated Security Drone System
- 5 How Cal Fire uses drones to fight wildfires
- 6 Become a Drone Racing Pilot: DRL Sim Tryouts are Now Open!
- 6 Eurosatory 2022: Loitering munitions are causing a 'revolution', claims AeroVironment
- 7 DroneShield deployed for counter drone security at world economic forum
- 7 US Representatives pass Act to accelerate urban air mobility infrastructure funding
- 8 China “to accelerate low altitude economy of long distance cargo drones and urban eVTOLs”
- 9 “Switzerland is the world’s most advanced UTM State” – new Unmanned Airspace ranking
- 9 Jetson ONE flying car makes its first eVTOL commute to work
- 10 Skyports tests drone deliveries of meals to schools in Scotland
- 11 Amazon Drone Delivery: A Brief History from the DRONELIFE Archives
- 11 North Dakota’s Vantis UAS System Opens Mission and Network Ops Center
- 12 SpaceX launches 55 satellites in three launches in less than two days
- 13 Wingcopter to hire 80 new employees after raising \$42M in funding
- 14 Jedsy Drone Delivery: Life-Saving Supplies, Delivered to a Window or Balcony
- 14 ‘Bipartisan, Bicameral’ Pro-AAM Legislation Passes in the House
- 15 Wisk Aero Partners with Local Government in Queensland, Australia
- 16 FAA approves drone delivery from Zipline
- 16 Through Starling, NASA will test complex swarm operations
- 17 Event 38 adapts a E400 mapping drone to hydrogen cell flight
- 18 ZIPLINE OBSTACLE AVOIDANCE TECH MAJOR LEAP FOR WIDESPREAD DRONE DELIVERIES
- 18 Kenya Airways’ unit in LOI for 40 Eve eVTOLs
- 19 NASA Plans 4 CubeSat Swarm Tech Experiments
- 20 Red Cat 4 Ship: One Pilot, Four Drones – Will a Multi Drone System Be the New Normal?



UAS and SmallSat Weekly News

18June22

DARPA wants to refuel drones in flight – wirelessly June 17, 2022 Military | News



The Defense Advanced Research Projects Agency (DARPA) [published](#) a request for information from anyone willing and able to contribute their tech, with a few caveats. It needs to fit on existing in-flight refueling tankers (the newer KC-46 and Cold War-era KC-135, specifically) and be able to deliver 100kW of power.

Where traditional air-to-air refueling requires booms, hoses, and other equipment, DARPA sees any potential laser power-beaming device as something small, like an underwing pod. The RFI reveals the DoD has already been exploring wireless energy transfer tech for its “unmanned aerial systems,” and that wireless sky charging could lead to drones that are lighter thanks to not needing as much onboard battery capacity.

DARPA sees its airborne energy well as a component of a much larger web of power generating, transfer, and receiving technologies that would enable “the DoD to dynamically allocate energy resources to more flexibly deliver military effects.” https://uasweekly.com/2022/06/17/darpa-wants-to-refuel-drones-in-flight-wirelessly/?utm_source=rss&utm_medium=rss&utm_campaign=darpa-wants-to-refuel-drones-in-flight-wirelessly&utm_term=2022-06-17

Asylon Receives First-of-Their-Kind BVLOS Waivers for Automated Security Drone System June 16, 2022 News



[Asylon, Inc.](#) announced today that the Federal Aviation Administration has granted them three beyond visual line of sight (BVLOS) waivers for their automated security drone-in-a-box system and service. These three waivers account for four initial sites around the U.S.

Asylon initially partnered with the FAA in February of 2020 through the uncrewed aerial system Integration Pilot Program (now known as the BEYOND Program] when they deployed their automated DroneSentry system at Memphis International Airport for FedEx Express.



UAS and SmallSat Weekly News

Asylon's flight operation from take-off through landing and battery swap are completely automated and remotely managed. To date, Asylon has completed more than **20,000** automated patrol and alarm response missions in the United States with their DroneCore system. The systems are being used to deter crime and detect potential issues like theft, fire, or active shooters while providing real-time intelligence to security teams. Further, as a robotic security platform with various sensors integrated, it has investigated and cleared thousands of false alarms, a problem that plagues already short-staffed security teams. https://uasweekly.com/2022/06/16/asylon-receives-first-of-their-kind-bvlos-waivers-for-automated-security-drone-system/?utm_source=rss&utm_medium=rss&utm_campaign=asylon-receives-first-of-their-kind-bvlos-waivers-for-automated-security-drone-system&utm_term=2022-06-17

Unjammable GPS system successfully tested on DeltaQuad VTOL UAV June 17, 2022 News



In the last few months, the R&D team at DeltaQuad has successfully integrated one of the most advanced anti-jamming GPS systems on the market today. The solution was put to the test using one of the most powerful military jamming systems, and the DeltaQuad came through with a perfect score.

The DeltaQuad equipped with the new anti-jamming GPS solution was flown in autonomous mode at close range to an active military jamming system. Even while being hit directly by a military-grade GPS jamming platform, the system maintained a solid GPS lock and the vehicle managed to autonomously resume its mission without any interruption.

For testing purposes, the ruggedized GPS system was installed together with the standard GPS system. As the vehicle came in range of the GPS jamming system, the standard solution quickly lost all positional awareness while the ruggedized system maintained an impressive amount of satellite locks, even while flying directly over the jammer at close range.

In addition, the DeltaQuad UAV is equipped to maintain live aerial intelligence, even in the toughest environments. The transmission system uses Frequency Hopping Spread Spectrum



UAS and SmallSat Weekly News

techniques to mitigate attempts to disrupt the communication links and also uses redundant video & communication links. https://uasweekly.com/2022/06/17/unjammable-gps-system-successfully-tested-on-deltaquad-vtol-uav/?utm_source=rss&utm_medium=rss&utm_campaign=unjammable-gps-system-successfully-tested-on-deltaquad-vtol-uav&utm_term=2022-06-17

Ireland to deploy drones to battle sea-based drug smuggling Bruce Crumley - Jun. 17th 2022



Development and deployment of AI-packing [drones](#) to battle Ireland's drug trafficking scourge are part of the [Guard Project](#) the government adopted last year. The initiative is looking to companies developing new and disruptive technologies to resolve problems the nation faces. As part of that effort [bringing business](#) and university researchers together, the program will test a **specially produced UAV** to scan coastal waters from the sky to identify transfers of material between boats or other atypical activity smugglers often engage in.

To enable that, Ireland's drone sector and [related tech companies](#) are readying tailor-made UAVs whose **AI will permit automated deployment and machine interpretation** of potential drug runner [activity below](#). The craft will also be designed to withstand high winds and frequently rainy weather at sea, fly [beyond visual line of sight missions](#) of up to 800 km, and be able to take off and land from either ground positions or ships.

Ireland's over 3,100 km coastline is 10 times the size of its land mass, and far too large for its limited naval policing capacities to keep continual watch. Indeed, the Guard Project estimates less than 10% of attempts to smuggle narcotics into Ireland are thwarted, making the nation a preferred gateway of traffickers into the European Union. <https://dronedj.com/2022/06/17/ireland-to-deploy-drones-to-battle-sea-based-drug-smuggling/>

Asylon Scores BVLOS Waiver for Automated Security Drone System Miriam McNabb June 15, 2022 by DRONELIFE Staff Writer Ian M. Crosby



This week, leading air and ground robotic security company [Asylon, Inc.](#) revealed that it has been granted

ea | Axcel Innovation | Suffolk, VA
s | 757-309-5869 | www.axcelinnovation.net



UAS and SmallSat Weekly News

three beyond visual line of sight (BVLOS) waivers from the Federal Aviation Administration.

Pertaining to the company's automated security drone-in-a-box system and service, these waivers will authorize Asylon to conduct BVLOS operations within four initial sites around the U.S. Though similar waivers have been granted to groups such as Google's Wing, Zipline, Xcel Energy, and Matternet, this is **the first time** a waiver of this class has been granted for an automated security drone system.

Asylon first worked alongside the FAA in February 2020 as part of the BEYOND Program, then known as the UAS Integration Pilot Program, when the company deployed its automated DroneSentry system at Memphis International Airport for FedEx Express.



Asylon has carried out over **20,000 automated patrol and alarm response missions** in the United States with its fully automated DroneCore system, monitoring for potential crimes and issues while offering real-time intelligence to security teams. The system has also investigated and cleared thousands of false alarms, lightening the burden on short-staffed security teams. <https://dronelife.com/2022/06/15/asylon-scores-bvlos-waiver-for-automated-security-drone-system/>

19June22

How Cal Fire uses drones to fight wildfires June 15, 2022 Marian Bouchot



Cal fire is using new drone technology to fight wildfires. Giving them a bigger picture of wildfires so they know how to best put them out.

"They're able to give us any type of heat source, or if there's an evacuation being put in place, or we have trapped people, they can identify those people and actually know where they're at on the incident," said Captain Richard Cordova with Cal Fire Riverside.

The department's drone program started nearly two years ago and now has about six certified pilots.

Ground crews can avoid going into dangerous conditions if the drone can be used instead. The drones have infrared capabilities. That means they can capture thermal images of the landscape below. The heat signatures help firefighters determine where they should create containment lines. <https://kesq.com/news/2022/06/15/how-cal-fire-uses-drones-to-fight-wildfires/>



UAS and SmallSat Weekly News

20June22

Become a Drone Racing Pilot: DRL Sim Tryouts are Now Open! Miriam McNabb June 17, 2022 by DRONELIFE Staff Writer Ian M Crosby



This week saw the start of the [2022 DRL SIM Tryouts](#), an annual esports tournament that provides the winner with a contract to fly in the Drone Racing League (DRL).

The SIM Champion will compete against the top drone pilots in the 2022-23 DRL Algorand World Championship Season in a series of events taking place in real life as well as in esports and the metaverse. This fall, the Championship will be aired on top sports networks worldwide.

Continuing through June 28th, the competition on the [DRL SIM](#), a drone racing simulator available on PlayStation, Xbox, Steam and Epic Games, will pit thousands of participants against one another in a race for the fastest time. The 24 highest scorers will then go on to compete in a virtual race on June 30, with the winner being crowned an official DRL Pilot.

Despite having never flown a real drone before, the previous year's SIM Champion was awarded a spot in the DRL before going on to win racing heats during last season's in-real-life events. The final bracket competition is scheduled to take place on June 30th at 7:00 PM ET. <https://dronelife.com/2022/06/17/become-a-drone-racing-pilot-drl-sim-tryouts-are-now-open/>

Eurosatory 2022: Loitering munitions are causing a 'revolution', claims

AeroVironment 16th June 2022 Harry Lye in Paris

With Eurosatory 2022 taking place with the backdrop of the ongoing Russian invasion of Ukraine, AeroVironment's loitering munitions remain attention-grabbing systems.



PROCEED
WITH
CERTAINTY

The US-based manufacturer has been the [subject of attention](#) in recent months with the supply of several Switchblade loitering munition systems to Ukrainian forces. Ukraine has also received Puma and [Quantix Recon](#) UASs from AeroVironment.



UAS and SmallSat Weekly News

Optimism about the battlefield advantages conferred by Switchblade should perhaps be tempered by a report from *CNN* on 14 June. Citing a 'source familiar with US intelligence', the report noted that some Ukrainian units 'prefer to use commercial drones rigged with explosives that are more user-friendly'.

Nonetheless, Dean said that loitering munitions allow for beyond-the-horizon strikes deep within an enemy's formation to impact its decision cycle, maneuverability, and the quantity and quality of systems they can bring to the fight through attrition.

<https://www.shephardmedia.com/news/air-warfare/eurosatory-2022-loitering-munitions-are-causing-a-revolution->

aerovironment/?utm_source=Newsletter&utm_medium=email&utm_content=Daily+Defence+News+Alert&utm_campaign=Daily+News+Alert+22+Nov+2021+%28no+sponsor%29&vgo_ee=tqmiRmjgFqa0tbrE6hm2%2BxhF%2B0Ss7x5Pkn%2BPTGhayD8%3D

DroneShield deployed for counter drone security at world economic forum June 17, 2022 Jenny Beechener



DroneShield reports its counter drone equipment was deployed at the World Economic Forum held in Davos, Switzerland on 22-26 May 2022.

WEF attracts over 2,500 participants, including world leaders and senior business executives. Swiss Police, which provided the security for the event, deployed RfPatrol body-worn detection technology for real-time drone awareness against terrorist and privacy threats. The equipment weighs 1kg and is about the size of a radio and is designed to provide counter drone capability for mass gathering events for law enforcement personnel. <https://www.unmannedairspace.info/counter-uas-systems-and-policies/droneshield-deployed-for-counter-drone-security-at-world-economic-forum/>

US Representatives pass Act to accelerate urban air mobility infrastructure funding June 19, 2022 Philip Butterworth-Hayes



The US House of Representatives has passed the *Advanced Aviation Infrastructure Modernization (AAIM)* Act which will, when it becomes law provide USD 25 million in grants for planning and building AAM infrastructure.

The Congress website reports that the bill “establishes a



UAS and SmallSat Weekly News

pilot grant program to support advanced air mobility (AAM) infrastructure. AAM infrastructure refers to an air transportation system that transports individuals and property between points in the United States in both controlled and uncontrolled airspace using certain aircraft, including remotely piloted, autonomous, or vertical take-off and landing aircraft.”

The bill has been advocated strongly by the National Business Aviation Association whose president and CEO Ed Bolen said in a press release “We applaud the House of Representatives for passing this important legislation which will support the future of on-demand aviation. The targeted investments outlined in this legislation will assist in creating new, innovative, and sustainable air transportation networks throughout our country that will support hundreds of thousands of green jobs while also ensuring our nation’s global leadership in aviation.” Similar legislation has been introduced to the Senate. <https://www.unmannedairspace.info/emerging-regulations/us-representatives-pass-act-to-accelerate-urban-air-mobility-infrastructure-funding/>

China “to accelerate low altitude economy of long distance cargo drones and urban eVTOLs” June 15, 2022 Philip Butterworth-Hayes Emerging regulations



The Sohu News Service reports the Civil Aviation Administration of China (CAAC) has published its “14th Five-Year Plan for General Aviation Development” which contains a roadmap for urban air mobility, UTM and drone operational development.

The 14th Five Year Plan was launched by the CAAC on 8 June, but no details of the eVTOL/drone elements of the plan can be found on the CAAC website. The news service carries a question-and-answer story with an unnamed CAAC official. The following text is an edited version of interview answers.

The plan proposes to ...expand the application field of drones, guide the establishment of a market-oriented and socialized service guarantee system, and vigorously develop a low-altitude new economy driven by new intelligent unmanned aerial vehicles. It will support the expansion of application services, deepen agricultural services, expand industrial applications, support logistics and distribution, and promote cross-border integration.

<https://www.unmannedairspace.info/emerging-regulations/china-to-accelerate-low-altitude-economy-of-long-distance-cargo-drones-and-urban-evtols/>



UAS and SmallSat Weekly News

“Switzerland is the world’s most advanced UTM State” – new Unmanned Airspace ranking June 19, 2022 Philip Butterworth-Hayes



Which countries will lead the race to deploy a UTM/U-space network which will allow the drone industry to scale up to become fully commercially viable?

Switzerland currently tops the list, according to the new *UTM Global Readiness Guide*, a new feature in the June 2022 edition of *Unmanned Airspace’s Market for UAV Traffic Management Services*, edition 5.1 (<https://www.unmannedairspace.info/uav-traffic-management-services/>).

The US is ranked 18th.

The UTM readiness index is based on the progress by individual countries to develop regulations, standards, procedures, and technology maturity levels to support automated flight approvals and management of beyond visual line of sight multiple drone operations in a single airspace. The index also takes account the take-up by drone operators of opportunities to commercially exploit the opportunity of maturing UTM systems. It references other drone regulation maturity index studies plus the progress reported by the study’s authors in implementing UTM/U-space regulations at a national scale.

The *UTM Global Readiness Guide* concludes that countries with relatively tight-knit drone ecosystem stakeholder relationships – regulators, research agencies, operators, UTM system suppliers, and communities are moving at a much faster rate than larger economies where there are wide institutional divisions between stakeholder groups.

<https://www.unmannedairspace.info/uncategorized/switzerland-is-the-worlds-most-advanced-utm-state-new-country-ranking-guide-from-unmanned-airspace/>

Jetson ONE flying car makes its first eVTOL commute to work Bruce Crumley - Jun. 20th 2022



Awaiting delivery of its first [flying cars](#) to customers next year, Swedish electric vertical takeoff and landing aircraft (eVTOL) company Jetson has given the world a look at what future commutes to work may be like – this time with its CEO strapped in at the commands.



UAS and SmallSat Weekly News

Jetson released a video on its [Facebook page](#) of company boss and inventor of its ONE [flying car](#), Tomasz Patan, piloting his eVTOL creation to the office. The accompanying text noted the craft cut his travel time (presumably compared to usual road options) by nearly 90%. There were no details on the distance or total duration of the commute, but the film did offer lots of snazzy footage of the one-person conveyance navigating between utility lines and over treetops before touching down at the company's HQ.

"We are incredibly proud to share that after months of rigorous trial and testing we completed **the world's first EVTOL commute**," the accompanying message read. "On 21.05.2022 co-founder and Jetson ONE inventor Tomasz Patan flew from home to work. This reduced our commute time by an impressive 88%. A momentous occasion for the emerging EVTOL sector. As pioneers, we are focused on further pushing the envelope during this aviation Renaissance." <https://dronedj.com/2022/06/20/jetson-one-flying-car-makes-its-first-evtol-commute-to-work/>

Skyports tests drone deliveries of meals to schools in Scotland Bruce Crumley - Jun. 20th 2022



Building from the momentum of previous and ongoing activities in the nation, drone services and [vertiport builder](#) Skyports has agreed to operate a [test program](#) in Scotland aiming to launch routine aerial deliveries of hot meals to remote schools in the Highlands and Hebrides islands.

As Skyports previously demonstrated in its activities using UAVs to [transport mail](#) and urgent [medical supplies](#) during spikes in the COVID-19 pandemic, there's no doubt about the feasibility and effectiveness of drone deliveries of goods to far-flung or difficult to access schools in Scotland. What the trials will explore, however, is how an aerial shuttling of hot lunches aboard craft with rather modest payload limits can be organized and scaled in a way to provide food for all students to be served.

The company was tapped by the nation's western Argyll and Bute region that includes 23 inhabited islands and remote rural communities. Initial testing will operate flights between the West Coast Unmanned Aerial Vehicle Innovation Logistics Hub being built at the local Orban Airport and a school 1.5 km distance away. The Orban drone hub is expected to be completed by March 2025. <https://dronedj.com/2022/06/20/skyports-tests-drone-deliveries-of-meals-to-schools-in-scotland/>



UAS and SmallSat Weekly News

21June2022

Amazon Drone Delivery: A Brief History from the DRONELIFE Archives Miriam

McNabb June 20, 2022



Amazon has announced that it will finally start an Amazon drone delivery project in the U.S., beginning in the small town of **Lockeford, CA**. The [announcement](#) comes more than 8 years after Amazon announced that it would pursue drone delivery.

The recent announcement states that residents within a 4-mile radius of an Amazon distribution center in Lockeford, CA will be eligible to sign up for Amazon's drone delivery service, PrimeAir. "Once onboarded, customers in Lockeford will see Prime Air-eligible items on Amazon. They will place an order as they normally would and receive an estimated arrival time with a status tracker for their order," says the announcement. "For these deliveries, the drone will fly to the designated delivery location, descend to the customer's backyard, and hover at a safe height. It will then safely release the package and rise back up to altitude."

An exact launch date for the program has not been specified at this time. Amazon is an FAA-certified Air Carrier, but the company is still working with the FAA to receive permissions to deliver in Lockeford. <https://dronelife.com/2022/06/20/amazon-drone-delivery-a-brief-history-of-the-patents-problems-and-progress-from-the-dronelife-archives/>

North Dakota's Vantis UAS System Opens Mission and Network Ops

Center Miriam McNabb June 20, 2022 by DRONELIFE Staff Writer Ian M Crosby



This past Thursday saw Vantis, North Dakota's statewide unmanned aircraft systems (UAS) system, formally celebrate the grand opening of its Mission and Network Operations Center (MNOC) at GrandSky Business and Aviation Park.

The MNOC acts as Vantis' command center and is essential to the coordination of beyond-visual-line-of-sight (BVLOS) flight operations.

"This is the heart of Vantis," said Trevor Woods, executive director of the Northern Plains UAS Test Site (NPUASTS), which administers Vantis. "From this location, we have the technology to



UAS and SmallSat Weekly News

monitor and control the remote infrastructure, enabling the entire operation. The MNOC will be integral to coordinating safe, repeatable BVLOS flights **across North Dakota, and scalable** to larger regions.”

The event featured a variety of representatives from Vantis, NPUASTS, Thales, the FAA, the UAS industry, and North Dakota state leaders, who have been granting their support to the project since authorizing its creation in 2019.

Gov. Doug Burgum said, “With Vantis, we’re creating a platform for entrepreneurs and innovators to develop new products and for the government and private sector to offer better services to the public. Today’s grand opening further cements North Dakota as a destination for UAS operations.”

Those in attendance were given the opportunity to tour the facilities and see a static display of UAS that are flying on the system. <https://dronelife.com/2022/06/20/north-dakotas-vantis-uas-system-opens-mission-and-network-ops-center/>

SpaceX launches 55 satellites in three launches in less than two days WILLIAM HARWOOD JUNE 19, 2022

SpaceX completed a record triple-header early Sunday, launching a Globalstar communications satellite from Cape Canaveral after putting a German radar satellite in orbit from California Saturday and launching 53 Starlink internet satellites Friday from the Kennedy Space Center.

The Globalstar launch capped **the fastest three-flight cadence for an orbit-class rocket in modern space history** as the company chalked up its 158th, 159th and 160th Falcon 9 flights in just 36 hours and 18 minutes. More than 50 launches are expected by the end of the year.



SpaceX's launch triple header began Friday when the company launched 53 Starlink internet satellites into orbit from the Kennedy Space Center.

The SpaceX trifecta began at 12:09 p.m. EDT Friday when a Falcon 9 using a first stage making its 13th flight thundered away from pad 39A at the Kennedy Space Center carrying another batch of Starlink satellites, pushing the total launched to date to **2,706**.

Twenty-two hours later, at 10:17 a.m. Saturday, another Falcon 9 boosted Germany's SARah 1 radar reconnaissance satellite into polar orbit from Vandenberg Space Force Base in California.



UAS and SmallSat Weekly News



The second flight in the series came Saturday morning from fog-shrouded Vandenberg Space Force Base when SpaceX launched a German radar reconnaissance satellite.

Sunday's flight began at 12:27 a.m. when yet another Falcon 9 took off from pad 40 at the Cape Canaveral Space Force Station, lighting up the overnight sky as it climbed away to the northeast over the Atlantic Ocean.

Two-and-a-half minutes later, the first stage fell away and headed for landing on an offshore droneship while the second stage continued the climb to space.



Carrying a Globalstar communications satellite, a Falcon 9 blasted off from the Cape Canaveral Space Force Station early Sunday, chalking up SpaceX's third successful launch in 36 hours.

Finally, around 2:20 a.m., the Globalstar FM15 satellite was released to fly on its own, bringing SpaceX's third flight in less than two days to a successful conclusion. Globalstar operates a constellation of satellites that provide voice and data services to users around the world. <https://www.cbsnews.com/news/spacex-launches-55-satellites-in-three-launches-in-less-than-two-days/>

Wingcopter to hire 80 new employees after raising \$42M in funding Ishveena Singh - Jun. 21st 2022



German delivery drone specialist Wingcopter has scored a cool \$42 million in its latest funding round — an extension of its Series A. The fresh funds bring the company's total equity raised to more than **\$60 million to date**.

Wingcopter said the [funding](#) will be used to expand its drone delivery services globally, ramp up production, accelerate the firm's R&D efforts, and hire 80 new employees. Interestingly, a prominent new shareholder for the company is German retailer REWE Group, which has 12,000 stores across Europe. Its addition to Wingcopter's investor base is a clear sign that the company is eyeing a future [beyond medical drone delivery services](#).



UAS and SmallSat Weekly News

To that end, Wingcopter is looking forward to ramping up production of its eVTOL delivery drone, the [Wingcopter 198](#). Explaining that most production slots for the drone are **already sold out for 2022 and 2023**, Wingcopter said its manufacturing facility in Germany should start with partly automated production work shortly, which would help to speed up the production process significantly. <https://dronedj.com/2022/06/21/wingcopter-42-million-funding/>

22June22

JedSy Drone Delivery: Life-Saving Supplies, Delivered to a Window or Balcony Miriam McNabb June 21, 2022 by DRONELIFE Staff Writer Ian M Crosby



JedSy delivers crucial, life-saving supplies, such as blood, medicines, and vaccines. The company's first drone office in **Malawi** has been active since last year, with its team of seven building and operating JedSy drones. The team is constantly expanding due to the increased demand for deliveries.

JedSy's delivery drones are able to complete what would normally be a **185-minute delivery in only 34 minutes**. The drones are on average 2.8x faster than ambulances and provide a cost savings of more than 50% compared to the current expenses for the Ministry of Health in Malawi.

With a patented loading and landing station, the JedSy drone is **the world's first and only** decentralized solution in the drone delivery market, able to land directly at a building as well as take off from it. This technology allows for **deliveries to be made directly to a window or balcony**, a considerable advantage over other drone delivery services which either drop packages or require an open space to land. <https://dronelife.com/2022/06/21/jedSy-drone-delivery-life-saving-supplies-delivered-to-a-window-or-balcony/>

'Bipartisan, Bicameral' Pro-AAM Legislation Passes in the House Mark Phelps June 21, 2022



The U.S. House of Representatives has passed what it calls the "bipartisan and bicameral]" Advanced Air Mobility Coordination and Leadership Act. The legislation directs the U.S. Department of Transportation to bring together an interagency working group that will also engage industry to "evaluate, plan, and



UAS and SmallSat Weekly News

coordinate efforts regarding the safety, infrastructure, and security of the developing AAM [Advanced Air Mobility] ecosystem in the United States.”

The act is based on the House’s November 2021 Advanced Air Mobility Coordination and Leadership Act, developed by Rep. Sharice Davids, D-Kan., Vice-Chair of the House Committee on Transportation and Infrastructure. She said, “If we want to keep leading the world in aviation, we can’t wait for technologies to come to us. Today, Members from both sides of the aisle showed they are ready to take advantage of the next wave of transportation. I can’t wait to harness the huge economic potential of advanced air mobility for our state.”

https://www.avweb.com/aviation-news/bipartisan-bicameral-pro-aam-legislation-passes-in-the-house/?MailingID=972&utm_source=ActiveCampaign&utm_medium=email&utm_content=Adversary-Training+Jet+Crash%2C+Congress+Addresses+AAM&utm_campaign=Adversary-Training+Jet+Crash%2C+Congress+Addresses+AAM%2C+Wednesday%2C+June+22%2C+2022

Wisk Aero Partners with Local Government in Queensland, Australia Jessica Reed | June 21, 2022



Electric air taxi developer Wisk Aero has entered into a partnership with the Council of Mayors South East Queensland to bring autonomous aircraft services to the region. Wisk and the Council of Mayors signed a Memorandum of Understanding which spells out their intent for collaboration, and Wisk is adding personnel that will be based in Australia, expanding their presence in the country.

According to the recent [announcement from Wisk](#), the fifth generation of Wisk’s aircraft will be on display in Brisbane next month. The company, based in San Francisco and in New Zealand, is developing an autonomous electric vertical take-off and landing (eVTOL) aircraft called Cora. The eVTOL has earned [experimental airworthiness certificates](#) from both the New Zealand Civil Aviation Authority and the Federal Aviation Administration.

As part of the agreement between Wisk and the Council of Mayors, they will collaborate on future business interests related to autonomous flight, Catherine MacGowan, Asia Pacific Region Director for Wisk, told *Avionics International* in an emailed statement. <https://www.aviationtoday.com/2022/06/21/wisk-aero-queensland-australia/>



UAS and SmallSat Weekly News

FAA approves drone delivery from Zipline RACHEL SCULLY - 06/21/22



The Federal Aviation Administration on Tuesday approved drone delivery company Zipline to operate as a small air carrier in the U.S.

Zipline, which has [contributed to thousands of medical supply drops globally](#), announced [in a press release](#) that it had received the certification, noting that it “is now authorized to complete the longest range on-demand commercial drone deliveries” in the country.

The drone company is the **first to receive air carrier certification** under the FAA’s BEYOND program, which Zipline says is “an initiative designed to safely integrate beyond visual line of sight drone operations into U.S. airspace.”

Zipline co-founder and CEO Keller Rinaudo in a statement, “Today, on average, **Zipline makes a delivery every four minutes**—ensuring people get access to the products they need, the moment they need them. “With our part 135 certification, and in close collaboration with our partners and the FAA, we are one step closer to making safe, clean and quiet instant delivery a reality for communities across the U.S.” Zipline is already making deliveries with Walmart in the U.S., as well as with Toyota Tsusho Corporation in Japan.

The drone company is also notable for its medical deliveries in Rwanda and Ghana, where it serves more than 2,000 health care facilities. It has delivered lifesaving medical necessities such as blood reserves, COVID-19 vaccines and equipment.

<https://thehill.com/policy/technology/3531431-faa-approves-drone-delivery-from-zipline/>

Through Starling, NASA will test complex swarm operations Debra Werner — June 21, 2022



NASA is preparing to launch Starling, its **first satellite swarm**. Instead of communicating directly with the four Starling **cubesats**, mission operators will send instructions to the swarm as a single entity.

If successful, “swarms have a potential to **revolutionize the way we do science**,” said Howard Cannon, NASA Starling project manager at the NASA Ames Research Center. “Instead of having one monolithic



UAS and SmallSat Weekly News

spacecraft that you are dependent on operating properly, you can have multiple smaller spacecraft that are less expensive.”

HelioSwarm, for example, is a \$250 million mission NASA plans to launch in 2028 to study solar wind turbulence with nine satellites. “They form an observatory to provide the **first ever** simultaneous, multiscale observations in the solar wind needed to understand space plasma turbulence,” Harlan Spence, HelioSwarm principal investigator and director of the University of New Hampshire Institute for the Study of Earth, Oceans and Space, said by email.

Despite the promise, swarms in general and the Starling mission specifically present challenges. It remains to be seen whether communications, navigation and autonomy technologies are advanced enough for swarm operations. NASA intends to find out during the six-month Starling mission with a series of experiments. <https://spacenews.com/through-starling-nasa-will-test-complex-swarm-operations/>

Event 38 adapts a E400 mapping drone to hydrogen cell flight Bruce Crumley - Jun. 22nd 2022



US [mapping drone](#) manufacturer Event 38 has revealed the successful test flight of one of its E400 UAVs adapted to operate using a [hydrogen cell](#) – a first step toward employing the cleaner and more efficient technology compared to batteries or gas power.

Ohio-based [Event 38](#) said it conducted the flight on June 13 at the Kent State University airport – the school being one of several the company partnered with to adapt its drone to [hydrogen cell use](#). [Event 38 customized](#) the E450’s carbon fiber structure to accommodate the bigger [hydrogen fuel cell](#) and tank and developed a thermal management system to keep the cell cool while the drone was in flight. Other programs have extended UAV flights by a factor of three or more compared to lithium-ion batteries. Meanwhile, because hydrogen cells involve fewer moving parts than other fuel systems, they demand far less maintenance and are much quieter than gas-powered craft.

The E450 UAV flew for **two hours** and attained Level 7 status – that is, “system prototype demonstration in a relevant environment.” Taylor says the craft could remain in the air for up to **six hours** once equipped with a fully pressurized hydrogen tank. <https://dronedj.com/2022/06/22/event-38-adapts-a-e400-mapping-drone-to-hydrogen-cell-flight/#more-82767>



UAS and SmallSat Weekly News

23June22

ZIPLINE OBSTACLE AVOIDANCE TECH MAJOR LEAP FOR WIDESPREAD DRONE DELIVERIES June 21, 2022 Sally French



In the **race to be the leader in drone delivery**, Zipline just announced a major technological improvement that could set its drones above the rest. California-based drone delivery company Zipline this month announced a new Detection and Avoidance (DAA) system. And the Zipline obstacle avoidance tech could not only set Zipline ahead of other competitors but also generally make widespread drone delivery far more viable than it ever was before.

The Zipline obstacle avoidance tech is very much unlike the visual sensor-based obstacle avoidance found on most other drones. It has onboard **acoustic** technology with a series of small, lightweight microphones and onboard processors capable providing 360-degree awareness with a range up to 2,000 meters.

It's designed to monitor not just its static surroundings like trees and buildings but also other aircraft in real-time — and adapt to changes in their flight path. In short, it means that drones should be able to safely fly in uncontrolled airspace as opposed to the highly planned flight routes in open spaces that we mostly see among drone deliveries so far to-date.

<https://www.thedronegirl.com/2022/06/23/zipline-obstacle-avoidance-drone/>

Zipline also just announced that it has received its Part 135 Air Carrier Certificate from the Federal Aviation Administration, enabling the company to perform the longest range on-demand deliveries with commercial drones in the U.S.

<https://www.aviationtoday.com/2022/06/22/zipline-part-135-certificate/>

Kenya Airways' unit in LOI for 40 Eve eVTOLs Greg Waldron 22 June 2022



Air taxi developer Eve has secured a letter of intent from Kenya Airways' unit Fahari Aviation for up to 40 electric vertical take-off and landing (eVTOL) vehicles. In addition, a working group will undertake joint studies on developing and scaling Kenya's urban air mobility (UAM) market, as well as the business model for cargo drone operations, says Eve,



UAS and SmallSat Weekly News

which was spun off from Embraer earlier this year. Deliveries are expected in 2026.

Kenya Airways chief executive Allan Kilavuka said, “The journey to realize the dream of eVTOL vehicles in Kenya is on course, and the partnership with Eve is a key achievement for us as part of the strategy to adopt new technologies as a growth strategy for the sustainable development of Africa.”

The LOI was signed in March, according to Eve, which announced the agreement only on 21 June. In August 2021, Eve launched a collaboration with Kenya Airways related to supporting Fahari Aviation, the unmanned aircraft systems division of the Kenyan flag carrier.

<https://www.flightglobal.com/aerospace/kenya-airways-unit-in-loi-for-40-eve-evtols/149117.article>

NASA Plans 4 CubeSat Swarm Tech Experiments Kacey Roberts June 22, 2022



NASA will examine the possibility of collecting multipoint scientific data using [small satellites designed to operate autonomously in a swarm](#) during a six-month mission slated to launch later this year, SpaceNews [reported](#) Tuesday.

The agency selected Firefly Aerospace to build a rocket that will send four six-unit CubeSats to low-Earth orbit for a series of Starling mission experiments under the company’s Venture Class Launch Services contract.

“Instead of having one monolithic spacecraft that you are dependent on operating properly, you can have multiple smaller spacecraft that are less expensive,” Howard Cannon, Starling project manager at NASA’s Ames Research Center, was quoted as saying by SpaceNews.

Demonstrations will test communications among the satellites, the use of onboard cameras called “star trackers” to detect spacecraft detection, swarm maneuvering and artificial intelligence-based ionospheric density monitoring.

Raytheon Technologies’ [Blue Canyon Technologies](#) subsidiary is the satellite manufacturer and operations support provider for the mission. <https://executivegov.com/2022/06/nasa-plans-4-cubesat-swarm-tech-experiments/>



UAS and SmallSat Weekly News

Red Cat 4 Ship: One Pilot, Four Drones – Will a Multi Drone System Be the New Normal? Miriam McNabb June 22, 2022 By DRONELIFE Feature Editor Jim Magill



Red Cat Holdings [NASDAQ:RCAT] is held in the AdvisorShares Drone Technology ETF [NYSE ARCA:UAV], the only ETF dedicated to the drone economy. The AdvisorShares Drone Technology ETF is a thematic investment strategy seeking to capture the growth opportunities in drones and autonomous vehicles (AV). AdvisorShares is a DRONELIFE sponsor.

Red Cat Holdings recently announced the launch of its version of a multi-drone system. The company says its 4-Ship software, marks **the first time a commercial company has brought such a system to market**. The product, which will be commercially available sometime this fall, is expected to have widespread applications for military and police as well as future uses in commercial markets.

Developed by Red Cat subsidiary [Teal Drones](#), and in close cooperation with its strategic partner, autonomous system developer [Autonodyne LLC](#), Red Cat will offer the multi-vehicle package in two configurations: 4-Ship and 4-Ship+. Both configurations will allow a single pilot to simultaneously control up to four of Teal's [Golden Eagle](#) UAVs. The Golden Eagle is the first drone mass-produced entirely in the U.S. under strict guidelines from the U.S. Department of Defense. <https://dronelife.com/2022/06/22/red-cat-4-ship-one-pilot-four-drones-will-a-multi-drone-system-be-the-new-normal/>

24June22

Drone News of the Week June 24: DRONELIFE Headlines, All in One Place Miriam McNabb June 24, 2022



Click on the links below to read or listen to each story in full.

[Unjammable GPS for Drones: Protecting Critical Missions](#)

[Become a Drone Racing Pilot: DRL Sim Tryouts are Now Open!](#)

[D-Fending the Skies: Counter Drone Solutions Protect Legitimate Operations \(A Drone Safety Day Special\)](#)



UAS and SmallSat Weekly News

[North Dakotas Vantis UAS System Opens Mission and Network Ops Center: The Heart of Vantis](#)

[Amazon Drone Delivery: A Brief History of the Patents, Problems and Progress from the DRONELIFE Archives](#)

[Energy Drone & Robotics Coalition on Dawn of Drones June 22!](#)

[Jedsy Drone Delivery: Life-Saving Supplies, Delivered to a Window or Balcony](#)

[Red Cat 4 Ship: One Pilot, Four Drones; Will a Multi Drone System Be the New Normal?](#)

[Wingcopter Funding: \\$42 Million in Latest Round, Over \\$60 Million Total for Drone Delivery](#)

[Drone Delivery Canada Care by Air Project: A New Transportation Route for Hospitals](#)

[Aerodyne FULCRUM: BVLOS Drone Ops for Pipeline Inspection](#)

Click on each headline to read or listen to the drone news of the week in full!

<https://dronelife.com/2022/06/24/drone-news-of-the-week-june-24-dronelife-headlines-all-in-one-place-to-read-or-listen/>