



## UAS and SmallSat Weekly News

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### uAvionix Announces Acquisition by DC Capital Partners March 10, 2022 News



uAvionix is pleased to announce its acquisition by DC Capital Partners, LLC (DCCP). Since uAvionix's inception, the company has leveraged disruptive technology to emerge at the forefront of the unmanned and general aviation markets. Becoming a portfolio company of DCCP will propel uAvionix forward with the means to impact the broader aerospace and defense markets.

With over 30 years' experience, DCCP is a Private Equity investment firm with over 60 acquisitions and \$1 billion in total investments. Over time, DCCP has developed a strategic and systematic approach built on Domain Expertise, Market Focus, and Strategic Process. DCCP has deep bench of [strategic advisors](#) including well-respected senior diplomatic, intelligence, and military officials.

uAvionix CEO Paul Beard said "DCCP shares our passion for connecting everything that flies, especially our current general aviation and UAS avionics products. DCCPs experience in maturing young companies will help to improve our internal operations, allowing us to expand our solutions to existing, adjacent and defense markets, while enabling us to grow globally".

[https://uasweekly.com/2022/03/10/uavionix-announces-acquisition-by-dc-capital-partners/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=uavionix-announces-acquisition-by-dc-capital-partners&utm\\_term=2022-03-11](https://uasweekly.com/2022/03/10/uavionix-announces-acquisition-by-dc-capital-partners/?utm_source=rss&utm_medium=rss&utm_campaign=uavionix-announces-acquisition-by-dc-capital-partners&utm_term=2022-03-11)

### Pix4D Germany wins a tender for Deutsche Bahn to monitor railway

infrastructure March 10, 2022 News



Pix4D is pleased to announce that it has been awarded a competitive tender for Deutsche Bahn to provide solutions and services for upcoming railway infrastructure projects through the **analysis and visualization of drone images**.

Pix4D will be using its products PIX4Dcloud, PIX4Dmapper, and PIX4Dmatic for processing and analyzing drone imagery for construction progress monitoring and quality assurance. This is an important building block for the digitalization of Deutsche Bahn's infrastructure management.



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The contract will be managed by DB Netz AG, the infrastructure operator of Deutsche Bahn AG, which maintains the largest rail network in Europe that measures around **34,000 kilometers**. Deutsche Bahn is committed to climate neutral operations by 2040 and this project is part of ongoing efforts to implement more efficient and environmentally friendly infrastructure maintenance and workflows. [https://uasweekly.com/2022/03/10/pix4d-germany-wins-a-competitive-tender-for-deutsche-bahn-to-monitor-railway-infrastructure/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=pix4d-germany-wins-a-competitive-tender-for-deutsche-bahn-to-monitor-railway-infrastructure&utm\\_term=2022-03-11](https://uasweekly.com/2022/03/10/pix4d-germany-wins-a-competitive-tender-for-deutsche-bahn-to-monitor-railway-infrastructure/?utm_source=rss&utm_medium=rss&utm_campaign=pix4d-germany-wins-a-competitive-tender-for-deutsche-bahn-to-monitor-railway-infrastructure&utm_term=2022-03-11)

### **Ukraine reportedly adapts small drones to drop Molotov cocktails in war with Russians** Bruce Crumley - Mar. 11th 2022



Less than two weeks after Ukraine officials called on drone-owning citizens to [volunteer](#) their craft for use defending the country from invading Russian forces, some of those non-military craft have now been reportedly weaponized to drop Molotov cocktails on targets below.

The fruit of innovation, team work, and a Soviet-era repair tradition known as “snotting things together” any way that works, the incendiary aerial delivery device was [featured in photos](#) in the *New York Post*, which failed to catch the clear markings on the UAV it says was developed by Ukrainian Territorial Defence Forces. In fact, the Ukraine craft in the images is a [DJI Inspire](#) cinematic drone tricked out with a fastening to hold gas-filled beer bottles for dropping, one would suspect, on Russian army targets.

The repurposing of the drone involves the collaboration of Ukrainian Territorial Defence Forces – which has been training volunteers to the resistance against how to make and use Molotov cocktails effectively in the battle against Russian invaders – and Lviv’s Pravda Brewery. Anyone seeking to slake their thirst from the small, artsy, and decidedly patriotic maker of craft beers, however, will have to wait while it serves the national cause. <https://dronedj.com/2022/03/11/ukraine-reportedly-adapts-small-drones-to-drop-molotov-cocktails-in-war-with-russians/#more-77699>



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### Drone video captures Ukraine ambush of Russian convoy nearing Kyiv Bruce

Crumley - Mar. 11th 2022



Footage apparently shot by one of Ukraine's Turkish-built Bayraktar TB2 drones shows the routing of an ambushed Russian convoy as it neared Kyiv this week, forcing the diminished column to beat a hasty retreat – and offering an example of the determined and often successful

counterattacks defenders have inflicted on invading troops during the three-week conflict.

The video was [tweeted](#) by the international group of researchers [Bellingcat](#) on Thursday, with text describing it as showing “a Russian military column coming under attack and retreating... in Brovary, northeast of Kyiv.”

. Shot straight on from a drone, it captures a convoy of over 20 Russian tanks and armored personnel carriers being ambushed by Ukraine militia fighters, who destroyed at least two vehicles and reportedly killed the commanding officer before the column sped off back where it had come from.

It's unclear whether the drone fired any of the shots in what's been dubbed online as the “Battle of Brovary,” but the effective Ukraine attack – and ignoble retreat of the battered Russian convoy – is emblematic of the unexpected resistance that has slowed or halted the advance of invading troops. <https://dronedj.com/2022/03/11/drone-video-captures-ukraine-ambush-of-russian-convoy-nearing-kyiv/>



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**Having eyes in the sky with drones is invaluable, Ohio cops say** Yesterday at 6:00 AM  
Denise G. Callahan Journal-News, Hamilton, Ohio



WEST CHESTER TOWNSHIP, Ohio — West Chester Twp. is the latest jurisdiction to purchase a drone, which helps the cops hunt down fleeing suspects, find missing persons and investigate traffic crashes, they say the bird's eye view is invaluable.

The trustees recently approved the **\$27,690** purchase which includes the drone itself, software, training and a 5% contingency. Several other jurisdictions, including Butler County Sheriff Richard Jones, have had eyes in the sky for some time.

The drone has myriad capabilities. They will use it for traffic crash reconstruction, 3-D imaging to help determine cause and fault and for locating missing persons and "suspects in hiding because it will have infrared night vision." to name a few possible tasks.

The sheriff got his first two drones in 2016 for \$1,200 each, the office now has three big 6-blade drones and two smaller devices. Jones said they also have an underwater drone.

<https://www.police1.com/drones/articles/having-eyes-in-the-sky-with-drones-is-invaluable-ohio-cops-say-zuBVA6p81WewjCaH/>

14Mar22

**FAA'S BVLOS FINAL REPORT INDICATES A FUTURE OF PART 108 DRONE PILOT RULES** March 13, 2022 Sally French



Most drone pilots hold a Remote Pilot Certificate under Part 107. But there could soon be a requirement that certain drone pilots fly under a proposed, new Part 108. That's according to the Federal Aviation Administration's Beyond Visual Line

of Sight (BVLOS) Aviation Rulemaking Committee (ARC) final report, which published in March 2022.

The committee, which is made up of representatives from private companies including [AirMap](#), [ANRA](#), [Iris Automation](#), [Amazon Prime Air](#) and [Wing](#), as well as organizations



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such as AUVSI, released its nearly 400-page Final Report on March 10. The report establishes a basis for scaling uncrewed flight in the national airspace.

Flying Beyond Visual Line of Sight is crucial to advancing the drone industry. Most drone operations, whether it's a length oil pipeline inspection or a delivery from a restaurant to someone's home five miles away, involves flying drones outside of the operator's eyesight. And most such flights are restricted to date (waivers can get around such restrictions but are typically complicated to obtain). With this new roadmap of recommendations, the drone industry is **a massive step closer** to more drone flights.

Here are some of the highlights of their recommendations, including a possible new Part 108 license requirement for some drone pilots ([check out the full report here](#)):

<https://www.thedronegirl.com/2022/03/14/part-108-drone-bvlos-faa/>

### **SparkCognition, SkyGrid and LIFT Aircraft “link to deliver UTM for autonomous vehicles”** March 11, 2022 Philip Butterworth-Hayes UAS traffic management news



According to a company press release: “The companies will apply AI and blockchain technology to manage the airspace for autonomous vehicles, specifically HEXA, LIFT’s electric vertical take-off and landing aircraft. This partnership comes through a contract milestone with the Air Force Research Laboratory through its SBIR Phase II program and

will help enable the United States Air Force to operate unmanned aerial vehicles safely and efficiently in first responder scenarios such as search and rescue missions, heavy lift cargo, fire response, and medical evacuation.”

By combining SGS’s advanced AI technologies with SkyGrid’s blockchain-based airspace management capabilities and LIFT’s UAVs, the companies will develop an air traffic management solution that provides defense, EMS, fire, and law enforcement with the means to advance their missions and more quickly respond to emergency situations.

<https://www.unmannedairspace.info/latest-news-and-information/sparkcognition-skygrid-and-lift-aircraft-link-to-deliver-blockchain-utm-for-autonomous-vehicles/>





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### First Look: Whisper Aero's New Electric Surveillance Drone Thom Patterson March 10, 2022



Whisper Aero has finished validation testing of its new ultra-quiet, high efficiency, electric aircraft propulsion technology for the Pentagon.

The Tennessee-based company made the announcement Wednesday, also releasing the first imagery of its intelligence, surveillance, reconnaissance

(ISR) drone, dubbed Whisper Drone.

"Being ultra-quiet and efficient is the key to achieving longer range and everyday scaled operations," Whisper Aero CEO Mark Moore said. "Our tech has fantastic applications at low speed for smaller surveillance drones and at high-speed for military and commercial transports."

The Whisper Drone will serve as a testbed to help engineers establish handling characteristics for larger platforms, including Whisper Aero's Whisper Jet, a regional electric airplane currently under development.

Based on validation testing, the U.S. Air Force has awarded Whisper Aero two contracts totaling **\$1.5 million** to support further development of its electric quiet propulsor for small, unmanned aircraft and a low-noise propulsion design software framework. The funding comes through the [AFWERX](https://www.afwerx.org/) technology accelerator program. <https://www.flyingmag.com/first-look-whisper-aeros-new-electric-surveillance-drone/>

### Ingenuity still "as good as new" after nearly a year on Mars Jeff Foust March 12, 2022



WASHINGTON — After nearly a year of operations, NASA's Ingenuity Mars helicopter is still "as good as new" as it serves as a scout for the Perseverance rover.

NASA's Jet Propulsion Laboratory announced March 11 that Ingenuity completed its **21st flight** on the planet, traveling 370 meters during the 129-second flight. The

helicopter has now traveled more than **4.6 kilometers** since its first flight in April 2021.



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Ingenuity was developed as a technology demonstration, with an original plan of no more than five flights over a month. The excellent performance of the 1.8-kilogram helicopter, though, led NASA to extend its mission, using it as a scout to examine terrain ahead of the Perseverance rover that carried Ingenuity to Mars.

The information Ingenuity has provided has created some modest time savings for Perseverance. "It's certainly shaved several sols, maybe a week, off of the time frame of the rover by having this advanced information," said Matt Golombek, a senior research scientist at JPL who has been involved with Mars landers dating back to Mars Pathfinder, during a March 8 media briefing at the Lunar and Planetary Sciences Conference. A sol is a Martian day, **about 40 minutes longer than a terrestrial day**. <https://spacenews.com/ingenuity-still-as-good-as-new-after-nearly-a-year-on-mars/>

### **FAA to Open Application Period for New Drone Service Suppliers** Naomi Cooper March 11, 2022



The Federal Aviation Administration is looking for companies to provide [Low Altitude Authorization and Notification Capability](#) services to unmanned aircraft system operators.

The agency said Wednesday it will open the application period for new UAS service suppliers **from May 2nd to June 3rd** and review submissions from qualified applicants from June 6th to July 8th.

FAA will hold technical interviews from July to August and conclude formal onboarding on October 14th. LAANC automates the process for drone operators to request FAA authorizations to fly in restricted airspace.

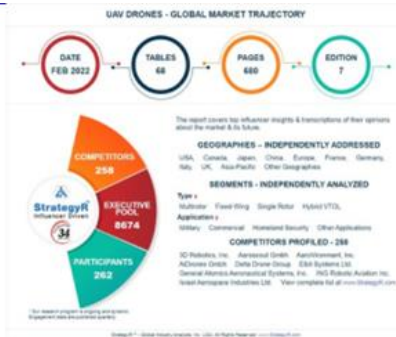
The automated system was launched in 2017 and is available at approximately **735 airports**. In February, FAA released its [millionth airspace authorization for UAV pilots](#) through LAANC. <https://executivegov.com/2022/03/faa-to-open-application-period-for-new-drone-service-suppliers/>

### **Global UAV drone market to reach \$58.5 billion by the year 2026** March 8, 2022 Jenny Beechener

A new market study published by Global Industry Analysts titled ["UAV Drones – Global Market Trajectory & Analytics"](#) points to a significantly be no The pre-pandemic period saw global demand for Unmanned Aerial Vehicles rise rapidly owing to their diverse application portfolio across a wide range of industries.



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Amid the COVID-19 crisis, the global market for UAV Drones estimated at \$33.6 Billion in the year 2022, is projected to reach a revised size of **\$58.5 Billion by 2026**, growing at a CAGR of **13.9%** over the analysis period. Multirotor, one of the segments analyzed in the report, is projected to grow at a 15.2% CAGR to reach \$32.3 Billion by the end of the analysis period. After a thorough analysis of the business implications of the pandemic and

its induced economic crisis, growth in the Fixed-Wing segment is readjusted to a revised 14.1% CAGR for the next 7-year period. This segment currently accounts for a 27.3% share of the global UAV Drones market. Globally, the market for multirotor drones is being driven by their increasing use in several non-military applications, specifically by law enforcement agencies. Demand for multirotor UAV drones is also being fostered by continuous advances in commercial and military technologies. <https://www.unmannedairspace.info/latest-news-and-information/global-uav-drones-market-to-reach-usd58-5-billion-by-the-year-2026-says-latest-gia-report/>

## Welsh MP raises \$56K for Ukraine rescue drones for victims of the Russian invasion



A member of Wales' national legislature has raised over \$56,000 in donations for the purchase of specialized drones to be used by Ukrainian medics trying to locate and treat people injured amid the Russian invasion of the country.

Mick Antoniwi, a second-generation Ukrainian representing Pontypridd in Wales' Senadd launched his funding appeal **hoping to raise \$6,500** for the acquisition of the UAVs and wound up **taking in over eight times that amount**. In coordination with the Ukraine Embassy in London, Antoniwi has handed that money over for the purchase of Parrot ANAFI drones that rescue and medical teams will use to locate people trapped or injured the Russian invasion.

“The drones will allow medics to identify the injured and fatalities in the rubble and chaos resulting from Russian attacks on civilian buildings,” Antoniwiw [told](#) GTM radio. “The request for the specialist drones has come directly from the Ukrainian Embassy in London.”



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The Parrot drones are already being urgently transported to Ukraine to locate victims trapped in structures damaged in the Russian onslaught. <https://dronedj.com/2022/03/14/welsh-mp-raises-56k-for-ukraine-rescue-drones-for-victims-of-the-russian-invasion/>

### **EHang inks AAV deal aiming to shape Malaysia's UAM future** Bruce Crumley - Mar. 14th 2022



Advanced autonomous aerial vehicle (AAV) manufacturer EHang has signed a contract with Malaysian company Aerotree to develop urban air mobility (UAM) services in the country with the **purchase of 60 passenger aircraft** as a key part of the deal.

The companies [said](#) the agreement involves Aerotree buying 50 EHang two-passenger EH216 series AAVs – matching the order the Guangzhou-based firm secured in January with Japanese helicopter services company AirX as it prepares for UAM operation. In addition, Aerotree has committed to acquiring 10 VT30 fixed wing AAVs, which take off vertically and cruise with horizontal thrust. The Malaysian company had previously placed an order for a single EH216.

The deal calls for EHang and Aerotree to promote, develop, and implement AAV operations through a mix of UAM services that include passenger transportation, aerial sightseeing, firefighting, and logistics in Malaysia. <https://dronedj.com/2022/03/14/ehang-inks-aav-deal-aiming-to-shape-malysias-uam-future/>

**15Mar23**

### **AIR and FlyOnE Partner on Personal eVTOL Adoption in Australia** Miriam

McNabb March 14, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Consumer eVTOL creator [AIR](#) announced today the formation of a partnership with Australian green transport pioneer and leading electric aircraft supplier [FlyOnE](#). The new partnership will also see the launch of the AIR Brand Ambassador program, providing strategic partners around the world with the ability to share the freedom of personal flight with their communities.



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FlyOnE will act as AIR's local service and maintenance partner, overseeing the delivery of 25 of the first AIR ONE vehicles to customers in 2025. FlyOnE will serve as the first official AIR Brand Ambassador, a role that will see the company lay the groundwork for the mass adoption of personal air vehicles in Australia.

As opposed to the Urban Air Mobility industry's development of air taxis for commercial use, AIR's AIR ONE vehicle will provide individual consumers with access to flight for their daily travels. The AIR ONE is a fully electric two-seater eVTOL with a range of 110 miles on a single charge, able to reach speeds of up to 155 miles per hour. The vehicle can take off and land on any flat surface. <https://dronelife.com/2022/03/14/air-and-flyone-partner-on-personal-evtol-adoption-in-australia/>

### Embraer CEO Sees Major Future UAM Market Potential for Eve Woodrow Bellamy III | March 14, 2022



While Embraer CEO Francisco Gomes Neto fielded no questions from analysts or investors about the future potential of their electric vertical take-off and landing (eVTOL) development arm Eve during their annual results call last week, the Brazilian executive emphasized his enthusiasm about the

future market potential presented by urban air mobility.

"The listing at New York Stock Exchange is expected for this second quarter with total investments of about \$500 million, which includes special and strategic investors. The anticipated pro forma enterprise value is \$2.4 billion," Neto said in his remarks. "Eve has the strategic support from Embraer, with access to infrastructure, extensive aircraft certification and manufacturing experience, and an established global network of services and support, intellectual property, and engineers as major differentiators from other projects."

Eve is the independent eVTOL development company, the first launched by the joint ventures firm EmbraerX, that in December announced a new [business combination agreement](#) with Zanite Acquisition Corp., the Cleveland, Ohio-based aviation investment and acquisition firm co-founded by private aviation entrepreneur Kenn Ricci. Under the business combination agreement, Eve will become a wholly owned subsidiary of Zanite.

Neto also highlighted Eve's [various airline partnerships](#) and future purchase agreements that include SkyWest, Republic Airways, and partnerships with Rolls Royce and BAE Systems, among



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others, to develop the future services and infrastructure necessary to enable UAM operations. Eve has also found funding in commercial aircraft leasing companies. Azorra, the Florida-based aircraft leasing company that specializes in Embraer regional jets, signed an LOI with Eve for up to **200 eVTOL aircraft** in December. <https://www.aviationtoday.com/2022/03/14/embraer-ceo-sees-major-future-uam-market-potential-eve/>

### **The Air Force just soared past an electric aircraft milestone** ROB VERGER MAR 14, 2022



*Maj. Jonathan Appleby, left, was the first Air Force pilot to fly the electric aircraft from Beta Technologies.*

Last week, on the morning of Wednesday, March 9, an electric aircraft with a **50-foot wingspan** called Alia took flight out of Plattsburgh, New York. The plane, powered by two motors driving a propeller in the rear, flew for about an hour. Later that day, it flew again.

The Alia aircraft is an experimental flying machine that produces no emissions while in the air, and it's made by a Vermont-based company called Beta Technologies. What made these flights notable is for the first time for this company and others in an Air Force program called Agility Prime, at the controls and on board the aircraft were Air Force aviators who both have a long history as test pilots.

Beta isn't the only company working on electric aircraft: Several others are as well, such as Joby, Kitty Hawk, Wisk, and Archer. They are part of an Air Force program called Agility Prime, an initiative that focuses on trying to help accelerate the work these companies are doing; it also gives the Air Force an inside look at what possible uses these new kinds of airplanes could serve for the military. <https://www.popsci.com/technology/air-force-pilots-fly-beta-electric-aircraft/>

### **TUSCANY'S ARTISTIC SIDE GETS SPOTLIGHT WITH CRAZY CREATIVE DRONE FOOTAGE** March 12, 2022 Sally French



drone no less.

Tuscany is already visually stunning just to look at, and it's been home to some of the world's greatest artists including Donatello, Leonardo da Vinci and Michelangelo. And in the 21st century, art showcases art, with a



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At least that's what you get when you watch "TUSCANY Through ART," a marvelous, visual journey of Tuscany's countryside, cities, culture and style. This short, 90-second video is a much-watch.



This video is unique. It tells the story of masterpieces from Friedrich, Dalí, and Van Gogh, catching glimpses of European art history and celebrating the beauty of humanity. And it serves as future inspiration for aerial filmmakers, who in year's past might have gotten away from winning contests simply because they had an aerial angle which had been previously unseen. [Watch "TUSCANY Through ART" here.](#)

And if you've got creative photos and videos of your own to share, you're in luck. DJI and SkyPixel are currently accepting entries for their [SkyPixel 7th Anniversary Aerial Photo & Video Contest](#) now through February 21, 2022. A combined \$100,000 worth of prizes are up for grabs. <https://www.thedronegirl.com/2022/03/15/tuscany-drone/>

## American Aerospace Launches AiRanger UAS Factory Expansion Phoebe Grinter / 15 Mar 2022



[American Aerospace Technologies, Inc.](#) (AATI) has initiated the expansion of its AiRanger Unmanned Aerial System (UAS) production operation.

American Aerospace ISR, LLC is the AiRanger engineering, certification, and manufacturing arm of AATI. This expansion will double production capacity to nearly **150 aircraft per year**.

The AiRanger is a medium altitude, long endurance unmanned aircraft with 18' wingspan, 220-pound max gross takeoff weight, **15+ hour endurance**, 15,000' MSL ceiling, 75-pound payload capacity and Beyond Visual Line Of Sight range of over **750-miles**. The AiRanger is pioneering the way in Group 3 UAS commercialization with a maturing FAA Type Certification application for this aircraft. [https://www.unmannedsystemstechnology.com/2022/03/american-aerospace-launches-airanger-uas-factory-expansion/?utm\\_source=UST+eBrief&utm\\_campaign=93bf430ceb-ust-ebrief\\_2022-mar-15&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-93bf430ceb-119747501&mc\\_cid=93bf430ceb&mc\\_eid=0d642a9d48](https://www.unmannedsystemstechnology.com/2022/03/american-aerospace-launches-airanger-uas-factory-expansion/?utm_source=UST+eBrief&utm_campaign=93bf430ceb-ust-ebrief_2022-mar-15&utm_medium=email&utm_term=0_6fc3c01e8d-93bf430ceb-119747501&mc_cid=93bf430ceb&mc_eid=0d642a9d48)





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### FAA Committee Recommends New Regulations for Drone Operations Jessica Reed |

March 15, 2022



The Federal Aviation Administration's Beyond Visual Line of Sight (BVLOS) Aviation Rulemaking Committee published a report last week with recommendations on standard regulations and guidance for drone operators. The BVLOS Aviation Rulemaking Committee, or ARC, was established nine months ago to analyze the current

regulatory framework for uncrewed aircraft systems (UAS) and subsequently determine appropriate criteria to enable safe, scalable, and environmentally friendly UAS BVLOS operations in the U.S.

The BVLOS ARC first recommends setting a consistent acceptable level of risk for all types of UAS operations to give operators flexibility in adhering to the acceptable level of risk using various methods. Another recommendation is to make amendments to the right-of-way rules in low-altitude areas to accommodate uncrewed aircraft operations. These amendments included giving UAS the right of way in shielded areas (within 100 feet of a structure), giving UAS the right of way over any crewed aircraft that do not have Automatic Dependent Surveillance-Broadcast (ADS-B) or Traffic Awareness Beacon Systems (TABS), and allowing right of way for crewed aircraft that are equipped with ADS-B or TABS and broadcasting their position.

<https://www.aviationtoday.com/2022/03/15/faa-committee-recommends-new-regulations-drone-operations/>

### U.S. Air Force Awards Contract to Electra and MIT for eSTOL Flight Controls

Jessica Reed | March 15, 2022



Electra will work in partnership with the Massachusetts Institute of Technology (MIT) to develop enhanced flight control systems for landing its eSTOL vehicle. This follows several other contracts that have been awarded to the company, including a Phase I STTR contract which was awarded to the Electra-MIT team in 2021 to develop an

eSTOL aero-propulsive model in addition to a flight control performance simulation and a vehicle sizing tool.





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Electra was awarded a [Phase III Small Business Innovation Research \(SBIR\) contract](#) from the U.S. Air Force (USAF) just last month as part of the USAF's Agility Prime program. This contract provided continued support in development of Electra's hybrid-electric vehicle. The company has also received an [investment from Lockheed Martin](#), who will collaborate with Electra in the development of potential solutions for the U.S. government. [Another SBIR contract from the Air Force for \\$1.5 million—a direct-to-phase II contract](#)—was awarded to Electra last year and will conclude in July 2022.

Now partnering with MIT, Electra will quickly develop “enhanced precision flight control systems for repeatable low-speed, ultra-STOL landings,” enabling safe operation of the eSTOL aircraft in spaces as small as 300 feet by 100 feet, according to the company's announcement. The team plans to demonstrate said flight control system on a full-scale technology demonstrator later this year. <https://www.aviationtoday.com/2022/03/15/u-s-air-force-awards-contract-electra-mit-estol-flight-controls/>

## NASA's Mars helicopter Ingenuity to keep flying through September (at least)

Elizabeth Howell published about 15 hours ago



The miniature Martian chopper now has clearance to continue flying until at least September, NASA's Jet Propulsion Laboratory announced today (March 15). As part of this extension, Ingenuity will also sport some special upgrades that will allow the 4-pound drone to do even more daring flights in support of the Perseverance rover mission that landed with it in February 2021.

When Ingenuity made its first tentative hop [on April 19, 2021](#), it was hailed not only as the first interplanetary flight but as concrete proof that it was possible to fly an aircraft in the thin Martian atmosphere. (Wind tunnel tests and modeling suggested it was possible, but the real-life Martian flight sealed the deal.)

That first experimental flight lasted just 39.1 seconds, and in the months since, Ingenuity has proven itself far beyond the initial plan that saw the craft making five flights. Now with [21 flights](#) completed as of last week, Ingenuity has flown for a total of **38 minutes and traveled 2.9 miles**. <https://www.space.com/mars-helicopter-ingenuity-flight-september>



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### Wing in Texas: Launching Service in Dallas Fort Worth Miriam McNabb March 15, 2022

By Jim Magill



Wing, the subsidiary of Alphabet that has pioneered drone home delivery service in cities in Australia as well as Helsinki, Finland; and **Christiansburg, Virginia**, is planning to launch its service later this year in the densely populated Dallas/Fort Worth metroplex region in Texas.

“Ordering is done through the Wing app,” Wing spokesman Scott Coriell said. “Customers pay for the goods, and there is no delivery charge.”

Until now, most retail drone delivery services in the United States, including Wing’s operations in Virginia, have been concentrated in smaller towns, where land usage is less crowded and the airspace less complex. Wing hopes to leverage the lessons it has learned in its Christiansburg operations to be able to operate a highly automated drone delivery service in more crowded, complex operating environments such as DFW.

Wing’s strategy for locating its drones marks a major difference between its new DFW operating model and that of its Virginia operations. “In Virginia, we operate from a central Wing location, with businesses locating goods at that location. In DFW, we will be co-locating our drones with our business partners,” Coriell said. <https://dronelife.com/2022/03/15/wing-in-texas-launching-service-in-dallas-fort-worth/>

17Mar22

### U.S. Adds ‘Kamikaze Drones’ as More Weapons Flow to Ukraine March 16, 2022



*Ukrainian fighters training in early March to use a British-provided NLAW antitank weapon.*

WASHINGTON — The Biden administration will provide Ukraine with additional high-tech defensive weapons that are easily portable and require little training to use against Russian tanks, armored vehicles, and aircraft, according to U.S. and European officials.



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In remarks on Wednesday, President Biden announced \$800 million in new military aid for Ukraine, including 800 additional Stinger anti-aircraft missiles, 9,000 anti-tank weapons, **100 tactical drones** and a range of small arms including machine guns and grenade launchers.

The Ukrainians have already proved their prowess at using British-provided and American-made anti-tank weaponry against Russia's much larger military. But in an [impassioned speech to Congress](#) on Wednesday, President [Volodymyr Zelensky of Ukraine asked for additional help](#) as Russian troops pushed to encircle major cities.

<https://www.nytimes.com/2022/03/16/us/politics/us-ukraine-weapons-drones.html>

### Charter Company Orders 200 Eve eVTOLs Russ Niles March 16, 2022



Embraer is approaching **2,000 pre-orders** of its Eve eVTOL thanks to an order for up to 200 aircraft announced Wednesday. The order by [Global Crossing Airlines](#) brings Eve's backlog to 1,785 aircraft. The order was revealed in a securities filing, and the company said it will deliver the aircraft in 2026. **The company has yet to fly a full-scale prototype of the aircraft**, which will seat four and will be autonomously controlled with an onboard pilot option.

Global Crossing is a Part 121 charter operator based in Miami. "These eVTOLs will enable us to expand our market throughout South Florida, bringing our customers to their flights at MIA and FLL, as well as local flying within Key West and all of the Keys, Naples, and Palm Beach," said Ed Wegel, Chair and CEO of GlobalX, in a statement. The company currently flies Airbus A321s, A320s and an A319 in various passenger configurations in the U.S. and Caribbean.

Eve [also announced](#) that Miami-Dade County will be the site of its **first urban air mobility test bed** that will result in a prototype that can be duplicated in other major centers.

[https://www.avweb.com/aviation-news/charter-company-orders-200-eve-evtol/?MailingID=851&utm\\_source=ActiveCampaign&utm\\_medium=email&utm\\_content=Balloon+ADS-B+Reprieve%2C+Plane+Swap+Stunt&utm\\_campaign=Balloon+ADS-B+Reprieve%2C+Plane+Swap+Stunt-Thursdays%2C+March+17%2C+2022](https://www.avweb.com/aviation-news/charter-company-orders-200-eve-evtol/?MailingID=851&utm_source=ActiveCampaign&utm_medium=email&utm_content=Balloon+ADS-B+Reprieve%2C+Plane+Swap+Stunt&utm_campaign=Balloon+ADS-B+Reprieve%2C+Plane+Swap+Stunt-Thursdays%2C+March+17%2C+2022)

## Drones in the Agriculture Sector: Five Ways Intelligent UAS are Helping Growers

Miriam McNabb March 16, 2022



*The following is a guest post by Leah Jacobe, Media Team Leader at [Zena Drone](#), a leading producer of small AI-driven commercial drones.*

The increasing demand for global food supply has led the agriculture sector to seek methods to speed up food source production. Regular monitoring, tracking, and surveillance of food plantations and livestock tracking are critical in ensuring consistent yield harvest outcomes. Technological innovation such as unmanned aerial vehicles is vital in securing the global food supply.

Multi-faceted drone applications are beneficial to the modern world, especially in securing food sources worldwide. For growers, here are five ways drones can help improve outcomes:

- 1) Surveying Fruits, Crops, and Livestock
- 2) Capturing of High-definition Photo and Video
- 3) 3D Mapping of Terrain
- 4) Plant and Animal Tracking using Drone Multispectral Sensors
- 5) Seed Planting and Plant Spraying

<https://dronelife.com/2022/03/16/drones-in-the-agriculture-sector-five-ways-intelligent-uas-are-helping-growers-meet-demand/>

## Natilus Announces Milestones in Development of Family of Autonomous Freight Aircraft

Natilus Mar 15, 2022

Blended wing design and new loading systems will increase efficiencies, lowering costs by 60%, increasing cargo volume by 60% and cutting carbon emissions in half. Natilus on track for first flight in 2023.



Natilus, Inc., the U.S. company working to democratize global freight transport by making air cargo more competitive, today announced major milestones in the design and development of its fleet of autonomous aircraft and an important new contract with Collins Aerospace to provide specialized cargo loading

systems.



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Natilus is offering a family of autonomous cargo aircraft with greater efficiency and cost-savings by innovating the design of freight transport aircraft to increase cargo volume by 60%. This will lower the cost of freight operations by 60% and cut carbon emissions in half.

<https://www.asdnews.com/news/aerospace/2022/03/15/natilus-announces-milestones-design-development-family-highly-efficient-autonomous-freight-aircraft>

### Reliable Robotics and Vantis Partner to Advance Automated Aviation in North

**Dakota** March 17, 2022 News



[Reliable Robotics](#), a leader in autonomous aircraft system development, today announced a joint agreement to advance repeatable, scalable, and economically viable operations of uncrewed aircraft systems (UAS) with Vantis in North Dakota. The collaboration directly supports the North Dakota

Department of Transportation's participation in the Federal Aviation Administration's [BEYOND](#) program for UAS.

Reliable Robotics was founded in 2017, and within an 18-month period, flew an uncrewed Cessna 172 over a populated area in controlled airspace. The company demonstrated remote piloting from its control center in 2021 and is currently working towards certification of its Remotely Operated Aircraft System on a popular cargo aircraft, the Cessna 208 Caravan.

Vantis has received a total of \$48 million in funding from North Dakota's state legislature to build a first-of-its-kind statewide UAS network for commercial use. Vantis is part of NPUASTS, one of the world's leading programs for UAS research and development. Reliable Robotics is working with NPUASTS to establish the Concept of Operations for UAS utilizing the Vantis system. [https://uasweekly.com/2022/03/17/reliable-robotics-and-vantis-partner-to-advance-automated-aviation-in-north-dakota/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=reliable-robotics-and-vantis-partner-to-advance-automated-aviation-in-north-dakota&utm\\_term=2022-03-17](https://uasweekly.com/2022/03/17/reliable-robotics-and-vantis-partner-to-advance-automated-aviation-in-north-dakota/?utm_source=rss&utm_medium=rss&utm_campaign=reliable-robotics-and-vantis-partner-to-advance-automated-aviation-in-north-dakota&utm_term=2022-03-17)

### UAVOS Completed Project to Improve Railway Inspection Safety and Speed

March 16, 2022 News



UAVOS Inc., an unmanned aircraft development company, has completed a railway utility inspection project with UAVOS' drones and photogrammetry/GIS software. UAVOS inspected over 3000 km of railway infrastructure including rails, power lines providing electricity to the trains, and other utilities in





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need of regular inspection and maintenance. The goal of the project was to apply unmanned inspection techniques to map railway infrastructure for an accurate visualization. providing fast and precise potential damage identification and thus increasing workplace safety for railway employees. The high-precision aerial images allowed UAVOS team to identify the structural integrity, potential defects, such as broken insulators, and the pylons condition.



Borey fixed-wing UAV with MTOW of 15 kg can carry up to 4 kg payload over 1 hour with a range of up to 220 km.

The UVH-25EL unmanned helicopter has been specially designed for commercial use and data capturing applications using LiDAR system as an all-in-one 3D mapping device. Fully automatic, compact and lightweight UVH-25EL is equipped

with an electric engine unit and features a flight endurance of up to 1.5 hours when mounted with a payload of 5 kg. [https://uasweekly.com/2022/03/16/uavos-completed-project-to-improve-railway-inspection-safety-and-speed-with-its-drones-and-data-processing-technology/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=uavos-completed-project-to-improve-railway-inspection-safety-and-speed-with-its-drones-and-data-processing-technology&utm\\_term=2022-03-17](https://uasweekly.com/2022/03/16/uavos-completed-project-to-improve-railway-inspection-safety-and-speed-with-its-drones-and-data-processing-technology/?utm_source=rss&utm_medium=rss&utm_campaign=uavos-completed-project-to-improve-railway-inspection-safety-and-speed-with-its-drones-and-data-processing-technology&utm_term=2022-03-17)

**18Mar22**

**SKYFIRE LAUNCHES SF2, A PUBLIC SAFETY DRONE MADE IN AMERICA** March 15, 2022 Sally French

It's a payload-agnostic, mid-size drone (it's 22-inches). The drone is offered by Skyfire Consulting , which is a public safety UAV consulting company with 10 years of experience operating in the United States. It has a long history of offering drone pilot training and has participated in FAA consulting and SOP development.. And now, it's offering its own drone.



This is a durable, lifting drone, capable of toting a maximum payload weight of **14 lb**. Among the things this drone might carry include sensors, cameras and even physical search and rescue items like life rafts.

Built with aerospace grade aluminum and carbon fiber, Skyfire's SF2 drone is designed to operate in complicated environments. It operates via a standard Herelink integrated remote controller and an onboard Pixhawk Cube Orange (NDAA compliant Blue Cube and Blue Herelink available upon request). It's also portable given its





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folding boom configuration, enabling it to be transported in a compact lightweight case or backpack for quick deployment. <https://www.thedronegirl.com/2022/03/18/skyfire-sf2-public-safety-drone/>

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