



## UAS and SmallSat Weekly News

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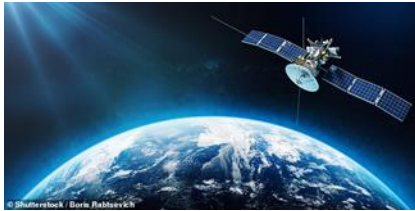
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**China plans to launch 13,000 satellites and provide powerful 5G internet** RYAN MORRISON FOR DAILYMAIL.COM 26 January 2022



[China](#) has sparked fresh spying fears over plans for 'megaconstellation' of up to 13,000 satellites operating in low Earth orbit, similar to [SpaceX](#) Starlink.

The network is said to be part of the Chinese 5G mobile internet rollout, with the first firms given contracts to begin development work in the city of Chongqing. Details are vague over exactly what the network will cover or how it will work, but the aim is to fill gaps in terrestrial communications and serve rural areas.

Reports suggest that this renewed push comes amid concern from China over an international rush for frequencies, that allow data to flow from Earth to space. Having a satellite internet constellation is considered a top-level project for the Chinese government and could see it provide communications services around the world, not just in China, competing with western operators. <https://www.dailymail.co.uk/sciencetech/article-10444523/China-sparks-fresh-spying-fears-reveals-plans-launch-13-THOUSAND-satellites.html?ito=1490>

## SKYPIXEL 7TH ANNIVERSARY DRONE ART CONTEST NOW ACCEPTING ENTRIES

January 28, 2022 Sally French



If you've got stunning drone photography or videography, now is the time to show it off. The entry window for the SkyPixel 7th Anniversary Aerial Photo & Video Contest is now open.

SkyPixel, which is an online community for drone artists and is affiliated with DJI, is now seeking entries for the latest iteration of its contest. You have until February 21, 2022 to submit your work in any of SkyPixel's six video categories or four photography categories (10 categories total).

This is the seventh iteration of the contest, which is run in conjunction with drone maker DJI. Since its inception, SkyPixel has attracted over 30 million aerial photographers, videographers, and content creators from more than 140 countries. SkyPixel says some of its leading works



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have received over 1 million views. “There is no restriction on the type or brand of drones used and participants can submit as many photos or videos as they wish,” according to a statement from DJI. <https://www.thedronegirl.com/2022/01/28/skypixel-7th-anniversary-drone-contest/>

### **Scotland planning drone transport, training, and research hub** Bruce Crumley - Jan. 28th 2022



Drones for good is coming to northwest Scotland, where plans are afoot for the craft to make regular deliveries to Hebrides islands from a UAV flight center that will serve as a research, development, and training facility to boot.

The drone project is slated to operate from the coastal town of Orban, situated in the Argyll and Bute region of Scotland directly across from Mull and other islands in the Hebrides archipelago beyond. Using a government subsidy of \$22,754 from a \$2.3 billion in UK funds earmarked for Scottish development and job creation projects, the West Coast Unmanned Aerial Vehicle Innovation Logistics Hub will be created in an unused area of Orban’s airport. Taking its cue from the town’s “gateway to the islands” nickname, the proposed center will operate regular drone deliveries of medical supplies, lab samples, merchandise, and other cargo. Royal Mail is also contemplating using the initiative to ferry its post by air to Hebrides destinations, as it’s done in the past to [islands](#) off the south coast of England.

“The potential of this innovative project is hugely exciting,” said Iain Stewart, UK minister for Scotland. “Drones are playing an increasingly important role in everyday life, no more so than in Argyll and Bute, where pioneering drone usage is taking place.”

<https://dronedj.com/2022/01/28/scotland-planning-drone-transport-training-and-research-hub/>

### **In a first, FAA approves BVLOS drones at Delek US refineries** Ishveena Singh - Jan. 28th 2022



Percepto, whose autonomous inspection platform AIM was named [one of 100 Best Inventions of 2021](#) by *Time* magazine, has received the green light from the FAA for beyond visual line of sight (BVLOS) drone operations at Delek US Holdings’ refineries in Texas and Arkansas.



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The approval makes Delek US's refineries the **first** to receive such a permit, and one of the first among US energy companies as well. Meanwhile, for Percepto, the BVLOS operational approval is one of the many received by its customers, including Florida Power & Light, Verizon Skyward, and others at industrial sites in Australia, Italy, Spain, Norway, Portugal, and Israel.

The permit allows Delek US to operate its drones [fully autonomously and remotely](#) from a control room. The team would be able to automate a select set of day-to-day operations, maintenance, security, and special projects tasks, keeping workers safe with preemptive risk notifications and mitigation services. Autonomous aerial surveillance, monitoring, and inspection of assets, equipment, machinery, materials, and supplies would also be possible in compliance with environmental and safety regulations. Percepto CEO Dor Abuhasira [remarks](#): "This approval to use autonomous drone technology is a huge step forward toward cleaner and safer refineries within the oil and gas industry." <https://dronedj.com/2022/01/28/delek-us-refineries-faa-approval-bvlos-drones/#more-75844>

### **Skyway, Zing band together in US drone delivery push** Ishveena Singh - Jan. 28th 2022



Skyway Technologies, a provider of air traffic navigation services for drones and autonomous aircraft, and Zing Drone Delivery, an autonomous flight platform capable of transforming DJI drones into delivery vessels with plug-and-play hardware, have entered a partnership to provide alternative delivery options across the United

States. This partnership will also work to regulate protocol within the Urban Air Mobility (UAM) market.

Skyway provides aircraft conflict resolutions, enhances adherence to federal, state, and local regulations, and provides additional emergency services as a Provider of Services for UAM. The company is on a mission to create a safe, scalable infrastructure to support the millions of potential airborne vehicles poised for flight within the next decade.

Meanwhile, Zing specializes in enabling a pre-existing network of Part 107 licensed pilots to make deliveries using the most common consumer drones on the market. As part of this new partnership, Zing plans to take part in Skyway's initial beta testing of the platform in Florida in order to deconflict with other drones, air taxis, and other airborne vehicles that are flying in the same vicinity. In addition, the end-to-end drone delivery platform says it will incorporate Skyway's Application Programming Interface into its proprietary autonomous flight software to



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help further expand its services. <https://dronedj.com/2022/01/28/drone-delivery-skyway-zing/#more-75837>

### Joby Aviation wants to conduct dramatic eVTOL flights over San Francisco Bay

Mark Harris@meharris January 28, 2022



The tests of the startup's second-generation pre-production prototype, called the S4, would be the **first** in full view of the public and the **first** in an urban environment.

The proposed San Francisco tests are centered around two prime sightseeing points in San Francisco Bay. One is about [halfway between the Golden Gate Bridge](#) and Alcatraz

Island, the other is [south of the Bay Bridge](#), closer to Alameda.

The flights over the Bay would follow a year of record-breaking flights, including [the longest](#) (155 miles), fastest (205mph) and, Joby now claims to TechCrunch, the highest ever flights of an electric vertical take-off and landing (eVTOL) aircraft. "We have recently flown several flights above 7,000 feet," said Walker-Jones. All these flights took place in remote coastal areas and over private land around Santa Cruz, California.

As with its recent record-setting flights, the all-electric, multi-propeller, five-seat S4 aircraft would not be carrying any people. Instead, the tests, which would need permission from the FCC, the FAA and city authorities, would be **remotely piloted** from nearby ground control stations. Joby's application notes that flights will typically last an hour, primarily over water, and from sea level up to 5,000 feet. It does not disclose where the aircraft, which have a wingspan of nearly 40 feet and weigh up to 4,400 pounds, will take-off, land, and recharge.

Joby's flights, if approved, would be **the first full-scale air taxi flights in an American city**. <https://techcrunch.com/2022/01/28/joby-aviation-wants-to-conduct-dramatic-evtol-flights-over-san-francisco-bay/?guccounter=1>

31Jan22

### Civilian Drones Help Ukraine Ready for Conflict as Donations Pour

In Miriam McNabb January 29, 2022 by DRONELIFE Staff Writer Ian M. Crosby

Autel Drones are among the most popular platforms being distributed. The Ukrainian military recently received an [EVO II Pro](#), donated by a private charity as a replacement for another EVO



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that had been lost in a prior operation. This is only one of many recent donations, as private investors, businesses, and charities have regularly been providing all manner of supplies and support to Ukrainian soldiers and militia groups. In 2021, crowdfunding site People's Project tweeted pictures of EVO II drones in Ukraine, noting that some models mounted with thermal imaging cameras were in use with special operations forces. The [Autel Robotics](#) EVO II Pro drone was designed for civilian and law enforcement use, not Ukrainian special operations forces.



Small Unmanned Aircraft Systems (sUAS) have been serving a crucial role in providing surveillance and reconnaissance for the military forces facing Russian-backed separatists in the Donetsk region. SUAS are utilized mainly to scout enemy positions, track movements, and pinpoint the location of

artillery positions, [according to Chinese news outlet Tuiato](#).

<https://dronelife.com/2022/01/29/civilian-drones-help-ukraine-ready-for-conflict-as-donations-pour-in/>

## Autonomous Drone Inspections at US Refinery: Delek US Gets BVLOS Approval

Miriam McNabb January 29, 2022 DRONELIFE Staff Writer Ian M. Crosby



Autonomous inspection leader [Percepto](#) has announced that the Federal Aviation Administration has approved Beyond Visual Line of Sight (BVLOS) operations for [Delek US Holdings'](#) refineries in Tyler, Texas and El Dorado, Arkansas. The facilities were inspected by Percepto drones, which provided visual data management and analysis. This BVLOS approval positions Delek US's refineries as **the first to receive such an approval**, as well as

one of the first among US energy companies. This is only the latest of many operational approvals to be received by Percepto customers, such as Florida Power & Light, Verizon Skyward, and other industrial sites in Australia, Italy, Spain, Norway, Portugal and Israel.

The BVLOS approval, which permits Delek US to operate its drones without a pilot to maintain line of sight with the drone, allows an operator located in the control room to easily manage and monitor pre-scheduled fully autonomous drone missions.

<https://dronelife.com/2022/01/29/autonomous-drone-inspections-at-us-refinery-delek-us-gets-bvlos-approval-with-percepto-aim/>





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### Boeing Invests Another \$495 Million In eVTOL Russ Niles January 30, 2022



Boeing has sunk another half-billion dollars into Wisk Aero, its partner in the urban mobility sector, to fund its flight test and certification program. Wisk is a collaboration of Boeing and Kitty Hawk, and the Cora electric aircraft is now in its sixth iteration and flying regularly. It has 12 wing-mounted horizontally oriented rotors to do the vertical part of its flight profile and a single pusher prop to scoot it through the air aerodynamically using the wings and a boom tail for lift. The company has **flown the prototypes 1,500 times** but for Boeing, it appears the hardware is secondary to the brain boxes that make it fly.

Cora uses artificial intelligence to fly autonomously, and Boeing says that's the future of aviation. "With this investment, we are reconfirming our belief in Wisk's business and the importance of their work in pioneering all-electric, AI-driven, autonomous capability for the aerospace industry. **Autonomy is the key** to unlocking scale across all AAM applications, from passenger to cargo and beyond," Boeing Chief Strategy Officer Marc Allen said in a [statement to TransportUp](https://www.transportation.gov/boeing-invests-another-495-million-in-evtol/?MailingID=823&utm_source=ActiveCampaign&utm_medium=email&utm_content=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails&utm_campaign=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails%2C+Monday%2C+January+31%2C+2022). "That's why straight-to-autonomy is a core first principle. Boeing and Wisk have been at the forefront of AAM innovation for more than a decade and will continue to lead in the years ahead." [https://www.avweb.com/aviation-news/boeing-invests-another-495-million-in-evtol/?MailingID=823&utm\\_source=ActiveCampaign&utm\\_medium=email&utm\\_content=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails&utm\\_campaign=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails%2C+Monday%2C+January+31%2C+2022](https://www.avweb.com/aviation-news/boeing-invests-another-495-million-in-evtol/?MailingID=823&utm_source=ActiveCampaign&utm_medium=email&utm_content=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails&utm_campaign=Evasive+Action+Tail+Strike+NTSB+Worried+About+Cub+Tails%2C+Monday%2C+January+31%2C+2022)

### SESAR JU reports interoperability testing of drones in unsegregated airspace

January 31, 2022 Philip Butterworth-Hayes Civil/military integration, UAS traffic management news



The SESAR JU reports its ERICA program is currently testing the interoperability of remotely piloted aircraft (RPAS) equipped with the detect and avoid (DAA) system to safely operate in airspace used by other categories of aircraft.

"We are also testing the proposed adjusted ATM procedures in simulated and real environments where RPAS can fly in unsegregated airspace," according to

Ermanno Girardelli from Leonardo, coordinator of ERICA, in a recent SESAR JU announcement.



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The project, which has received funding from the SESAR Joint Undertaking under the European Union's Horizon 2020 research and innovation program, aims to identify the minimal changes needed to existing systems and procedures to enable RPAS integration in the current air traffic controlled airspace classes A-C under IFR (instrument flight rules), according to the SESAR JU text. It is also looking at the introduction of on-board DAA systems to allow aircraft to react to unforeseen situations almost instantaneously.

The project is validating a DAA solution building on the results of previous initiatives, in which the DAA systems ACAS-Xu and "European Detect and Avoidance System" were defined and developed, while integrating other SESAR research work conclusions on collision avoidance, exploiting the lessons learned of air-ground industries, air navigation service providers, network manager and academic-research community. <https://www.unmannedairspace.info/civilmilitary-integration/sesar-ju-reports-interopability-testing-of-drones-in-unsegregated-airspace/>

### **EIB publishes market review of urban air mobility with guidance on drone**

**finance** January 25, 2022 Jenny Beechener UAS traffic management news



The Advisory Hub of the European Investment Bank (EIB) has published two reports entitled: *A Market Assessment Report on the Urban Air Mobility (UAM) Sector*, and *A Guide to Finance for Drone Projects*.

The guides are designed to be read with the EIB report *A Market Assessment Report on the Urban Air Mobility Sector*, and the *Study on the societal acceptance of Urban Air Mobility in Europe* published by the European Aviation Safety Agency.

The UAM report provides an overview of the current market and a forecast of the future market. In doing so, the report aims to highlight some of the barriers and challenges impacting the growth of the UAM market but also some of the opportunities that could be harnessed with improvements in different areas requiring collaboration across a range of stakeholders. The report concludes with interventions and actions that are required to support a growing UAM market and sets out some priorities for financing, technical assistance, and wider interventions. View the market assessment report [here](https://www.unmannedairspace.info/latest-news-and-information/eib-publishes-market-review-of-urban-air-mobility-along-with-guidance-material-on-drone-finance/). <https://www.unmannedairspace.info/latest-news-and-information/eib-publishes-market-review-of-urban-air-mobility-along-with-guidance-material-on-drone-finance/>





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### Delta Drone International to divest ParaZero for \$6 million in cash January 31, 2022 News



Delta Drone International Limited has entered into a binding agreement with a consortium of investors\* led by NASDAQ-listed Medigus Ltd and facilitated by Israeli venture capital firm L.I.A Pure Capital Ltd (collectively “Buyers”) to sell ParaZero Technologies Ltd (“ParaZero”) which operates the Company’s drone safety business, for a total consideration of A\$6 million in cash.

This transaction allows the Company to focus on becoming one of the leading drone service providers globally after its successful acquisition of the Delta Drone South Africa business in December 2020 and the purchase of Arvista Pty Ltd in Australia in September 2021. Post-sale, this will leave the Company with a strengthened balance sheet and a substantially reduced need for cash to fund the ongoing R&D investment that had been required by the ParaZero business, allowing the Company to focus on aggressively growing its global drone services business. [https://uasweekly.com/2022/01/31/delta-drone-international-to-divest-parazero-for-6-million-in-cash/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=delta-drone-international-to-divest-parazero-for-6-million-in-cash&utm\\_term=2022-01-31](https://uasweekly.com/2022/01/31/delta-drone-international-to-divest-parazero-for-6-million-in-cash/?utm_source=rss&utm_medium=rss&utm_campaign=delta-drone-international-to-divest-parazero-for-6-million-in-cash&utm_term=2022-01-31)

### DRONE VOLT Introduces its new HELIPLANE LRS January 31, 2022 News



DRONE VOLT, expert in embedded artificial intelligence and manufacturer of professional civil drones, announces the launch of a new version of its VTOL drone: the HELIPLANE LRS.

This new Vertical Take Off and Landing UAV combines the advantages of a multi-rotor with those of a fixed-wing: it takes off vertically like a conventional UAV, thus avoiding the need for take-off and landing strips, and flies like an airplane thanks to an engine placed at the rear of the aircraft. The transition between vertical and horizontal flight modes is fully automatic.

Thanks to the lift generated by its wings and the use of brand-new battery technologies, this new HELIPLANE LRS is very durable and can fly for almost **3 hours** and cover up to 1600 hectares per flight.

Its ability to ensure flights over such long periods and distances allows it to be deployed in many industrial fields for complex and automatic photogrammetry missions over large areas,



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long-distance surveillance, or high-precision survey missions such as plantation water stress measurements and energy infrastructure inspection.

Versatile, the HELIPLANE LRS can carry a wide variety of payloads that are easily changed and integrated to cover a multitude of applications. [https://uasweekly.com/2022/01/31/drone-volt-introduces-its-new-heliplane-lrs/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=drone-volt-introduces-its-new-heliplane-lrs&utm\\_term=2022-01-31](https://uasweekly.com/2022/01/31/drone-volt-introduces-its-new-heliplane-lrs/?utm_source=rss&utm_medium=rss&utm_campaign=drone-volt-introduces-its-new-heliplane-lrs&utm_term=2022-01-31)

## Sagetech Avionics and NUAIR Team to Bring Detect And Avoid to Market in 2022

January 31, 2022

**Bingen, WA, USA**— [Sagetech Avionics](#) Inc., a U.S. aerospace technology company providing situational awareness for crewed and uncrewed aerial systems, and [NUAIR](#) (Northeast UAS Airspace Integration Research Alliance, Inc.) a New York based nonprofit with a mission to safely integrate uncrewed aircraft systems into the national airspace, have partnered to test Detect and Avoid (DAA) solutions and Automatic Dependent Surveillance–Broadcast transponders, both developed by Sagetech. The testing will be for various concepts of operations including package delivery, and lateral infrastructure inspection.



*Drones and fixed wing aircraft on the runway at the NY UAS Test Site demonstrating how the two aircraft will share the same airspace.*

Testing will take place in Syracuse, New York, early this year. The partnership will also focus on the integration of various detect and avoid technologies and non-cooperative sensors, utilizing the LTE network at the New York UAS Test Site and within New York's 50-mile UAS Corridor. [https://sagetech.com/news/sagetech-avionics-and-nuair-team-up-to-bring-detect-and-avoid-solution-to-market/?utm\\_campaign=PR%20Communications&utm\\_medium=email&\\_hsmt=202508486&\\_hsenc=p2ANqtz--q\\_sHn2MnXReD2fTX22-gU-A4hjYUftm8np2u-texP2yw1csF64oWR5JGZqNSzBFfuBy3DNNYvj33ID\\_NSGYhzgssNaw&utm\\_content=202508486&utm\\_source=hs\\_email](https://sagetech.com/news/sagetech-avionics-and-nuair-team-up-to-bring-detect-and-avoid-solution-to-market/?utm_campaign=PR%20Communications&utm_medium=email&_hsmt=202508486&_hsenc=p2ANqtz--q_sHn2MnXReD2fTX22-gU-A4hjYUftm8np2u-texP2yw1csF64oWR5JGZqNSzBFfuBy3DNNYvj33ID_NSGYhzgssNaw&utm_content=202508486&utm_source=hs_email)



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1Feb22

### American Robotics CEO Reflects Receiving First FAA Approval for Autonomous Flight

Miriam McNabb January 31, 2022 by Jim Magill



In January, 2021, the Federal Aviation Administration gave its approval to the company's Scout System to operate automated drones without human pilots or observers on-site. The Scout System features advanced acoustic detect-and-avoid technology that enables its drones to always maintain a safe distance from other aircraft.



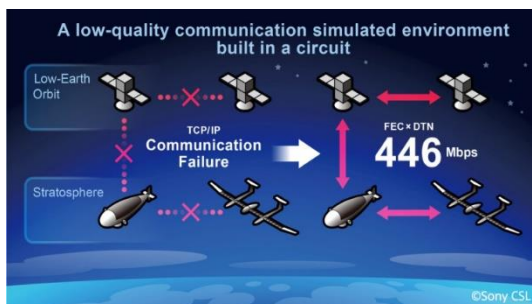
Mozer said regulations requiring the presence of human operators during drone operations had slowed the commercial adoption of drone technology, while the adoption of drone use in other sectors had raced forward. "Previously the growth has been in the military and consumer sectors, but I think the next decade is going to be defined by the **commercial** drone sector,"

he said.

Over the next several years, the approval is expected to pave the way for increased use of drone technology in a wide variety of sectors including agriculture and infrastructure inspection in industries ranging from oil and gas, mining and railroads, to solar farms and other forms of renewable energy. <https://dronelife.com/2022/01/31/american-robotics-ceo-reflects-one-year-after-receiving-first-faa-approval-for-autonomous-flight/>

### Sony CSL, JAXA exhibit "complete and uncorrupted" data file transfer in error-prone setting

Fiza Ali @Fiza\_Aliiii · Jan 28, 2022



Sony Computer Science Laboratories (CSL) and the Japan Aerospace Exploration Agency (JAXA) joined hands [to conduct an experiment transferring a complete data file in a "simulated low-quality and error-prone communications environment"](#) as part of JAXA's Space Innovation through Partnership and Co-creation (J-SPARC) program.



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This collaboration aims to form **an optical internet service between low orbit satellites and unmanned aircraft for stratospheric telecommunications**. Being able to transfer data in a strict environment is essential for future stratospheric and low-Earth orbit optical communications. And, with this experiment, Sony CSL and JAXA have set up the technical foundations for the commercialization of the technology. <https://www.neowin.net/news/sony-csl-jaxa-exhibit-complete-and-uncorrupted-data-file-transfer-in-error-prone-setting/>

### **Volatus secures Natilus long-distance heavy-load cargo drones** Bruce Crumley - Feb. 1st 2022



Diversified UAV equipment and services company Volatus Aerospace says it has secured delivery of next-generation Natilus long-distance cargo drones with the first production run of the craft expected in 2025.

[Volatus](#) – whose activities range from UAV sales, pilot training, specialized [public safety](#) services, and drone delivery, says it will be procuring Natilus N3.8T planes to further broaden its cargo business. The company's [Avidrone Aviation](#) unit already operates heavy-lift freight craft for clients. Its Volatus Aviation affiliate – formerly called Partner Jet – offers chartered jet services whose facilities will be leveraged to accommodate the long-range, large payload hauls that Natilus cargo drones will carry out.

The Natilus N3.8T is a twin-engine turboprop specialized freight drone that will have a maximum takeoff weight of 19,000 lbs., **1,035-mile range**, and will carry up to **8,500 lbs. of cargo** in LD3 containers. Use of standardized containers is one of the UAV's features, along with blended wing-body design and remote piloting. Natilus says the craft will provide around 60% more payload volume than traditional aircraft of the same size and reduce both cost and carbon emissions by 50%. Its cloud-based navigation system interfaces with satellites to communicate with and control the craft, and has an onboard autopilot backup. The N3.8T has already completed its second wind tunnel test and is expected to go into operation in 2025. <https://dronedj.com/2022/02/01/volatus-secures-natilus-long-distance-heavy-load-cargo-drones/#more-75980>



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### **Brazil looks at tree-planting drones to help fight climate change** Ishveena Singh - Feb. 1st 2022



With the world's second-largest forest area, Brazil is among one of the countries that has pledged to end and reverse deforestation by 2030. But since humans planting trees is a slow process that cannot meet our urgent climate goals, the South American nation is now experimenting with drones to spawn native tree species.

A forest restoration project using XAG agricultural drones has been initiated to help demonstrate the effectiveness of drones in boosting forest growth. It is hoped that the [Arboreto Project](#), which is being carried out by Brazil's oldest university, the Federal University of Paraná, will pave the way for autonomous technology being leveraged in large-scale tree-planting efforts.

During field experiments, different amounts of seeds were weighed and sorted into a smart container onboard the drone. Once the pilot entered all the operation parameters – such as waypoints, flight speed, and spray volume – into a mobile app, XAG agricultural drones with spreading attachments ran along the target lines, evenly distributing seeds from different forest species native to the region.

Compared to planting trees by manual labor, fully autonomous drones can improve the productivity of the restoration work significantly – especially in terrains that are difficult to access. With deforestation becoming a global crisis that can undermine the climate target and threaten food security, drone seeding applications can be explored to make forest replanting easier, faster, and more cost-effective than ever. <https://dronedj.com/2022/02/01/tree-planting-drones-brazil/>

**2Feb22**

### **ManTech Lands \$118M Navy Contract for ISR Support to Unmanned Aircraft**

Charles Lyons-Burt February 1, 2022



The contract is offered by the Naval Surface Warfare Center and expects ManTech to support [intelligence, surveillance and reconnaissance](#) in aircraft systems such as the MQ-4C Triton.

Robert Rea | Axcel Innovation | Suffolk, VA  
[robert.rea@axcel.us](mailto:robert.rea@axcel.us) | 757-309-5869 | [www.axcelinnovation.net](http://www.axcelinnovation.net)



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“Our aim is to ensure battle-space dominance at speed across the full range of combat scenarios,” said [David Hathaway](#), executive vice president and general manager of ManTech’s defense sector. Hathaway also emphasized intelligent systems engineering as a key proficiency in ManTech’s toolbox.

NSWC’s contract will see ManTech employing model-based systems engineering alongside the company’s cyber range environment, ACRE. ManTech’s work will also utilize electro-optical infrared sensors that bolster vision in any light condition. It arrives on the heels of an **\$88 million** task order under which ManTech is providing [test and evaluation support](#) to Navy weapons and combat systems. That contract is also a product of the Naval Surface Warfare Center and was announced in January 2022. <https://executivegov.com/2022/02/mantech-lands-118m-navy-contract-to-offer-isr-support-to-unmanned-aircrafts/>

## FAA’S NEW YORK DRONE TEST SITE LANDS BIG SOUTH KOREAN PARTNER Sally French February 1, 2022



NUAIR, which is the New York-based nonprofit manager of the FAA-designated New York UAS Test Site, has landed a partnership with a big player in South Korea’s drone delivery space, Pablo Air.

Pablo Air and NUAIR (which stands for the Northeast UAS Airspace Integration Research Alliance) announced that the two had signed a memorandum of understanding on developing regulatory-compliant commercial drone solutions that involve flying drones **beyond visual line of sight** for U.S.-based clients. Pablo Air will get to operate its drone ground control system and drone delivery platform in the U.S. Meanwhile, NUAIR gets the benefit of another strong drone company under its wing.

NUAIR has close ties to the Federal Aviation Administration, which is a big bonus for Pablo Air. NUAIR, a New York-based nonprofit with a mission to safely integrate and scale commercial drone operations into the national airspace, manages operations of the FAA-designated New York UAS Test Site at Griffiss International Airport, Rome, NY on behalf of Oneida County. It’s also the team responsible for the advancement of New York’s [50-mile UAS Corridor](#) between Rome and Syracuse, NY. <https://www.thedronegirl.com/2022/02/02/pablo-air/>





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### Airflow and El Azufre Sign Letter of Intent for Andes Mountain Ski Resort February 1, 2022



San Francisco, Calif. [Airflow, Inc.](#), an aerospace company building a next-gen electric Short Takeoff and Landing (eSTOL) aircraft, today announced a letter of intent with El Azufre, a 21st century clean-energy ski resort located in the Andes Mountains. Under the agreement, El Azufre has committed to **purchasing five** of Airflow's eSTOL aircraft to offer sustainable and

convenient transportation to and from the remote resort. These next-gen aircraft are an important part of El Azufre's mission to provide a luxury ski resort experience without harming the environment.

El Azufre has opted for Airflow aircraft **powered by hydrogen**, made possible by Airflow's flexible approach to propulsion options. These aircraft will be fueled with **locally produced** green hydrogen that is generated at El Azufre **using renewable, geothermal energy**. The aircraft are also equipped with Airflow's distributed propulsion system that allows them to safely land on El Azufre's short runways that are situated at **8,000 feet** above sea level.

<https://www.airflow.aero/news/el-azufre>

### US Special Operations Command picks Anduril to lead counter-drone work in \$1B deal Jen Judson Jan 24



WASHINGTON — U.S. Special Operations Command has picked [California-based Anduril Industries](#) to lead its counter-drone systems integration work in a **\$1 billion deal**, according to a contract announcement and company statement.

Anduril's family of systems designed to counter drone threats is run by the Lattice operating system and includes its Sentry tower and the small unmanned aerial system Anvil. The system also brings in "best-of-breed" third-party sensors and effectors "for a layered defensive approach," according to the company.

The Lattice system can provide autonomous detection, classification and tracking of targets at the edge of the battlefield and alerts users to the detected threats. It also prompts users with



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solutions to engage and destroy the threats. The Sentry tower is comprised of an onboard radar and optical sensors within embedded computing cores that can process data through machine-learning algorithms to detect, identify and track threats.

Anduril said it will deliver capability through “traditional means,” but will also deploy the capability as a service and configure the system to carry out specific missions as threats evolve or new threats emerge. And under the contract, it must design, prototype, and develop new counter-UAS technology. [https://www.defensenews.com/unmanned/2022/01/24/us-special-operations-command-picks-anduril-to-lead-counter-drone-integration-work-in-1b-deal/?utm\\_source=Sailthru&utm\\_medium=email&utm\\_campaign=Air%20Force%20DNR:%20Recurring%20Campaign%202021%202022-01-24&utm\\_term=Editorial%20-%20Air%20Force%20-%20Daily%20News%20Roundup](https://www.defensenews.com/unmanned/2022/01/24/us-special-operations-command-picks-anduril-to-lead-counter-drone-integration-work-in-1b-deal/?utm_source=Sailthru&utm_medium=email&utm_campaign=Air%20Force%20DNR:%20Recurring%20Campaign%202021%202022-01-24&utm_term=Editorial%20-%20Air%20Force%20-%20Daily%20News%20Roundup)

### **Silent Arrow® Autonomously Delivers 1,026 Pounds of Cargo in First Overseas Deployment** February 2, 2022 News



[Silent Arrow](#) today announced that the Air Force of a U.S. allied government in the Middle East has conducted the **first** overseas deployments of the Silent Arrow GD-2000 cargo delivery drone under a **\$1.5M** operational evaluation contract.

In preparation for the flight operation, 1,026 lbs. (465 kg) of an undisclosed cargo load was secured inside the 26 cubic foot fuselage of two GD-2000s, bringing the gross vehicle weight of each aircraft to 1,520 lbs. (689 kg), below Silent Arrow’s certified max gross of 2,000 lbs. (907 kg).

[https://uasweekly.com/2022/02/02/silent-arrow-autonomously-delivers-1026-pounds-of-cargo-in-first-overseas-deployment/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=silent-arrow-autonomously-delivers-1026-pounds-of-cargo-in-first-overseas-deployment&utm\\_term=2022-02-02](https://uasweekly.com/2022/02/02/silent-arrow-autonomously-delivers-1026-pounds-of-cargo-in-first-overseas-deployment/?utm_source=rss&utm_medium=rss&utm_campaign=silent-arrow-autonomously-delivers-1026-pounds-of-cargo-in-first-overseas-deployment&utm_term=2022-02-02)

**3Feb22**

### **Zipline and Magellan Rx Partner for Drone Delivery of Prescription Meds to U.S. Homes** Miriam McNabb February 02, 2022

Instant logistics leader [Zipline](#) has announced a partnership with [Magellan Rx Management](#), the full-service pharmacy benefits management division of [Magellan Health, Inc.](#), for the delivery of prescription medications, which will include specialty medications for the treatment of chronic,



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complex conditions, directly to patients' homes by drone. Magellan Rx Management is just the latest among a growing number of organizations that are partnering with Zipline worldwide.



Zipline designs, manufactures, and operates **the world's largest** automated on-demand delivery service, which has completed over **235,000 commercial deliveries so far**, with a delivery made once every four minutes on average. Magellan Rx will be the first pharmacy benefits manager to deliver specialty and traditional medications through Zipline. This option will first be made available to Magellan Rx members in the **North Carolina** service area.

Magellan Rx plans to initiate operations this year, after it receives approvals from the Federal Aviation Administration. It will carry out operations from Zipline's existing distribution center in **Kannapolis**, North Carolina, which is able to serve customers within **7,800 square miles**. Zipline's automated on-demand delivery service enables healthcare organizations and patients to receive their required medications in as little as **fifteen minutes**.

<https://dronelife.com/2022/02/02/zipline-and-magellan-rx-partner-for-drone-delivery-of-prescription-meds-to-u-s-homes/>

**Azur Drones Investment: Another €8 Million to Speed Development** Miriam McNabb February 02, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Following a year marked by steady growth in 2021, drone-in-a-box solutions leader [Azur Drones](#) has announced that it has secured nearly €8 million in funding to support its development in 2022. This new round of fundraising brings Azur Drones' total raised since 2016 to roughly **€38 million** and should enable the company to consolidate its leadership.

Azur Drones' [Skeyetech](#), originally designed for surveillance applications, is increasingly requested by industrials to conduct other applications to support their operations. The drone-in-a-box solution has been deployed for over 2 years on critical sites of large industrial companies including TotalEnergies, Orano, Port of Dunkerque, Oiltanking, and major players in the chemical industry. With over **20,000 autonomous flights and 200 daily users**, Skeyetech technology is now proven on a global scale. <https://dronelife.com/2022/02/02/azur-drones-investment-another-e8-million-to-speed-development/>



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### Elroy Air Unveils Chaparral, an Autonomous, Hybrid-electric VTOL Cargo Aircraft

Press 27 January 2022



Elroy Air, the company developing the **first** autonomous vertical take-off and landing aerial cargo system, unveiled its pre-production Chaparral aircraft today. The Chaparral can autonomously pick up **300-500 lbs** of cargo and deliver it by air up to **300 miles**, a capability that pushes beyond the limited payload capabilities of delivery drones and the airport infrastructure required of piloted air cargo options available today.

Elroy Air Co-founder and CEO David Merrill said, "The Chaparral is an important part of the future of express logistics. It is built for full end-to-end automation, and it will safely and efficiently make express shipping possible in thousands of new places. It's a delivery drone that's faster than ground transport and lower cost than today's traditional aircraft."

The company has secured agreements for more than **500 aircraft** from commercial, defense and humanitarian customers amounting to more than **\$1 billion** in aircraft demand.

[https://www.suasnews.com/2022/01/elroy-air-unveils-its-chaparral-a-first-of-its-kind-autonomous-hybrid-electric-vtol-cargo-aircraft/?utm\\_campaign=InnovateEnergy%20Content&utm\\_medium=email&\\_hsmi=202785318&\\_hsenc=p2ANqtz-8XkvrI20cS-WT7XNvw2OVQHMwzUxQ-BosNHbxbj7Vt-4nflLply\\_5CIW0EfHIBorMzpqcTc2CT3jaOHmlhGUJO8pl4g&utm\\_content=202785318&utm\\_source=hs\\_email](https://www.suasnews.com/2022/01/elroy-air-unveils-its-chaparral-a-first-of-its-kind-autonomous-hybrid-electric-vtol-cargo-aircraft/?utm_campaign=InnovateEnergy%20Content&utm_medium=email&_hsmi=202785318&_hsenc=p2ANqtz-8XkvrI20cS-WT7XNvw2OVQHMwzUxQ-BosNHbxbj7Vt-4nflLply_5CIW0EfHIBorMzpqcTc2CT3jaOHmlhGUJO8pl4g&utm_content=202785318&utm_source=hs_email)

### 5 WAYS DRONES MAKE A POSITIVE SOCIAL IMPACT February 2, 2022 Sally French



Drones are a lot more about just saving companies money and time. And while drones certainly bring enormous financial benefits, it's increasingly clear that drones provide a less quantifiable — but still apparent — social impact.

Much of that was laid out in a report released today that was put together by drone mapping software company DroneDeploy, dubbed the [DroneDeploy Social Impact Report](#). As part of that report comes some interesting stats on how drones have served the greater world, whether it's crisis response, building more sustainable communities, and providing STEM education. And with that, here are 5 ways that drones make a positive social impact, beyond just making



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money for businesses: 1. Protecting the environment, 2. Natural disaster crisis response, 3. Long-term planning for more sustainable communities, 4. STEM education, 5. Archaeological research. See the report: <https://www.thedronegirl.com/2022/02/03/5-ways-drones-make-a-positive-social-impact/>

## Big Money from Traditional Aviation Continues to Pour into AAM / UAM

**Ecosystems** Juan Plaza Public Safety & Emergency Services



Over the past two weeks, we have been bombarded with news about considerable investments into advanced air mobility (AAM) companies. [Electra](#), [Wisk Aero](#) and [Elroy Air](#) have all made major announcements, cementing their roles as major players in the aerospace industry and the

future of the airspace that is [seeing a merging of drone technology](#).

On January 18<sup>th</sup>, Electra.aero announced that it received an important injection of cash from Lockheed Martin Ventures [as part of its Series A funding round](#).



A few days later, Wisk Aero [announced that it has raised \\$450 million](#) from Boeing in a new funding round that will make it one of the **most well-funded AAM companies in the world**. Founded in 2019 as a joint venture between Boeing and Kitty Hawk, the flying taxi company is controlled by Larry Page, co-founder of Google.

Almost simultaneously with Electra's and Wisk's announcement came the news that [Mesa Airlines](#), an important regional air carrier, had signed a letter of intent to **buy 150 aircraft** from [Elroy Air](#) in an effort to expand its reach into the parcel and health care sectors. And of course, Elroy has also fully [debuted the Chaparral](#), their autonomous VTOL **cargo** aircraft. [https://www.commercialuavnews.com/regulations/big-money-from-traditional-aviation-continues-to-pour-into-aam-/-uam-ecosystems?utm\\_source=marketo&utm\\_medium=email&utm\\_campaign=newsletter&utm\\_content=newsletter&mkt\\_tok=NzU2LUZXSi0wNjEAAAGCX\\_EF\\_mgSeE2J\\_xpQAgtFXJbiXEbBoQ5y8dbJilj-tTFivJmJnbJOauyaYWoiflmZl1wfKEB8WWjHigaZQESG6TI6oLx8vsjZlvo9IAHFwwX3PA](https://www.commercialuavnews.com/regulations/big-money-from-traditional-aviation-continues-to-pour-into-aam-/-uam-ecosystems?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=NzU2LUZXSi0wNjEAAAGCX_EF_mgSeE2J_xpQAgtFXJbiXEbBoQ5y8dbJilj-tTFivJmJnbJOauyaYWoiflmZl1wfKEB8WWjHigaZQESG6TI6oLx8vsjZlvo9IAHFwwX3PA)

## Smart drone radar avoids collisions automatically in key pilotless aviation tests

Ishveena Singh - Feb. 3rd 2022

In a series of tests conducted recently in Phoenix, a drone piloted by a Honeywell radar system has emerged triumphant in determining the best flight path and autonomously swerving





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around an intruder drone that did not have a transponder. This key achievement, the aerospace technology company stresses, will usher in the era of self-flying drones, air taxis, and other advanced air mobility vehicles.



In the high-stakes tests conducted by Honeywell, the IntuVue RDR-84K radar proved that not only can it detect airborne traffic, but it can also **decide autonomously** on a course of action. Essentially, the radar takes over navigation and pilots an aircraft to safety using its onboard processor.

Weighing less than two pounds, the RDR-84K is the size of a paperback book. But despite its small size, this radar can see targets three kilometers away. It uses monopulse technology, a system of overlapping beams, to increase accuracy and eliminate ground clutter. In addition, the device can map terrain and provide alternate navigation in the case of GPS failure. It can also act as a radar altimeter during landing.

In previous tests, the Honeywell radar system proved it can detect noncooperating traffic while mounted on helicopters and drones. But the new tests conducted in the Arizona desert recently marked **the first time** the radar performed the avoidance function without human intervention. <https://dronedj.com/2022/02/03/honeywell-drone-radar/>

**4Feb22**

### **Sunflower Labs Security: The Beehive Drone-in-a-Box Solution** Miriam

McNabb February 03, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Today, autonomous security systems innovator [Sunflower Labs](#) Inc. announced the distribution of its Beehive System to partners ADT Inc, 10 Federal Self Storage, Swiss Federal Railways, and Security Robotics Development & Solutions GmbH.

The Beehive System is a drone-in-a-box solution capable of expanding any security or video surveillance system. The system consists of a fully autonomous “Bee” drone and a compact “Hive” base station. The Hive houses the brains of the system and processes and analyzes all incoming data using state-of-the-art machine learning and neural networks, as well as rapidly recharges the Bee.





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A lightweight drone built for autonomous flight, the Bee features high-quality video capture, rapid recharging, and reliable landing even in adverse weather conditions. It can respond to activity on any part of the property, within 30 seconds on a 4-acre property and 90 seconds on a 10-acre property. The Bee operates by **autonomously** planning a safe flight path around the pre-mapped property, detecting unexpected obstacles, and performing a “security sweep” before landing back in the Hive, all without any need for manual drone operation.

Founded in 2016, Sunflower Labs first announced its products at CES in 2020. The company offers next generation autonomous security for commercial, industrial, and residential properties. Sunflower Labs has so far secured **\$15 million** in funding from General Catalyst, Stanley Ventures, Gentian Investments, PBFS, Drone Fund, and All Turtles.

<https://dronelife.com/2022/02/03/sunflower-labs-security-the-beehive-drone-in-a-box-solution/>

## Honeywell Smart Drone Radar Avoids Collisions Automatically In High-Stakes

**Test** February 3, 2022 News



A drone piloted by the Honeywell IntuVue RDR-84K radar system has triumphed in a high-stakes game of dodgeball, repeatedly swerving around intruder aircraft in a series of tests that are key to the future of pilotless aviation.

Recently conducted in the Phoenix area, the tests showed the radar can not only detect airborne traffic but can also decide autonomously on a course of action. The radar can take over navigation and pilot an aircraft to safety using its onboard processor.

The [RDR-84K](#), which is the size of a paperback book, has proven its ability to detect noncooperating traffic during extensive testing while mounted on helicopters and drones. But the new tests marked the **first time** it has performed the avoidance function **without human intervention**.

With both drones on autopilot, Honeywell engineers [flew two quadcopter drones directly at each other](#) 300 feet above the ground at a test site in the desert. In multiple flights, the drone equipped with the RDR-84K detected the noncooperating “intruder” drone and evaluated its flight path. Then it calculated an avoidance maneuver and took over navigation — flying left, right, up, down or stopping midair, depending on winds and other factors.



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Once the danger of a collision had passed, the radar released control of the drone, and the autopilot guided it back to its original course.

“This was all automatic,” said Larry Surace, lead systems engineer for the RDR-84K, Honeywell Aerospace. “The radar recognized the danger, decided on a course of action, flew to safety and then made sure the danger had passed — all without input from anyone on the ground.”

[https://uasweekly.com/2022/02/03/20732/?utm\\_source=rss&utm\\_medium=rss&utm\\_campaign=20732&utm\\_term=2022-02-03](https://uasweekly.com/2022/02/03/20732/?utm_source=rss&utm_medium=rss&utm_campaign=20732&utm_term=2022-02-03)