



UAS and SmallSat Weekly News

Contents

- 2 Spanish National Police Begin eVTOL Trial Operations
- 2 BAE Systems test APKWS guided rockets for small drone defense
- 3 Finnish drone company to trial same-day newspaper delivery to lake island residents
- 4 2022 drone market forecasts: optimism but uncertainty over demand for complex services
- 4 Japan's Expo 2025 issues call for eVTOL operators to develop UAM network at show
- 5 DroneShield reports record AUD11 million order for counter drone equipment
- 5 Oklahoma City DronePort Network and Osage to create AAM/drone testing corridor
- 6 Threat posed by drone swarms highlighted in national defense act passed by Congress
- 7 Drone Delivery Canada wins best delivery drone service at the 2022 Droning Awards
- 7 3rd International Drone Show Competition Winners Announced
- 8 Falco Xplorer completes first flight campaign, a decisive step toward certification
- 9 This NYE fireworks drone show just broke two world records [Video]
- 9 Ukraine downs 89 Iranian loitering drones Russia fired in the opening hours of 2023
- 10 DRONELIFE Enters Our 10th Year! Our Top 3 Predictions for the Drone Industry in 2023
- 11 H3 Dynamics and ARO Introduce Drone in a Box Subscription Model
- 12 TAKE A DRONE TOUR OF THE NEW DJI HEADQUARTERS
- 12 Autonomous Firefighting Drone Market Set for Growth
- 13 AAC awarded NASA contract for new tilt-wing drone design and development
- 14 Volocopter Heavy-Lift Cargo Drone Completes Deconfliction Test Flights
- 14 Aerospace Company Missiya to Officially Launch "Super" Drone
- 15 The Space Needle Rings in 2023 with Integrated Drone, Light, and Fireworks Celebration
- 16 DroneShield's DroneGun Protects Brazil's Presidential Inauguration, Neutralizes 4 Drones
- 17 Automated Warehouse Drones: Inventory Audits with 99.7% Accuracy [VIDEO]
- 17 GA-ASI Announces Strategic Partnership with Bharat Forge to Manufacture Aerostructures
- 18 Incubation hub Etc. backs Altitude Angel to make the UK a global leader for drone operations
- 18 Archer, car giant Stellantis ink major eVTOL air taxi production deal
- 19 DRONE FLIES OVER MOUNT EVEREST: HERE'S HOW THE STUNNING FEAT WAS DONE
- 20 2022 drone market forecasts: optimism but uncertainty over demand for complex services
- 21 SwissDrones Scores Another Funding Round for Uncrewed Helicopter Systems



UAS and SmallSat Weekly News

31Dec22

Spanish National Police Begin eVTOL Trial Operations Kate O'Connor :December 30, 2022



The Spanish National Police (SNP) have officially started trial operations with the Ehang EH216 autonomous electric vertical take-off and landing (eVTOL) vehicle. SNP and China-based autonomous aerial vehicle (AAV) company EHang announced the collaboration in October 2021, stating that they would be exploring how to best use AAV technology in emergency and security missions through trial

flights and use case analysis. The EH216 is being considered for tasks such as “accessing contaminated areas with nuclear, radiological, bacteriological or chemical risks, landing in confined areas, aerial logistics, and other police services.”

“The **SNP is the first security institution in the European Union to operate an AAV,**” said Spain’s Secretary of State for Security Rafael Pérez. “Unmanned aircraft systems (UAS) constitute an alternative technological asset for multiple purposes, such as deployment in dangerous areas following a natural disaster or an accident, without endangering human lives. The lower operating costs of UAS and their constant new applications show great advantages over traditional aerial means.” <https://www.avweb.com/recent-updates/evtols-urban-mobility/spanish-national-police-begin-evtol-trial-operations/?MailingID=1165>

BAE Systems test APKWS guided rockets for small drone defense Bruce Crumley - Dec. 30th 2022



The profile of smaller drones is rapidly expanding in both the planning and execution of global conflicts, and in reaction defense and security company [BAE Systems](#) has continued adaptation and testing of less costly munitions to battle mid-sized UAVs as an option to [larger and more](#)

[sophisticated](#) anti-air systems.



UAS and SmallSat Weekly News

BAE Systems [said](#) it successfully tested firing 70mm rockets guided by its Advanced Precision Kill Weapon System (APKWS) kits as defense assets to track and shoot down Class-2 [drones](#). Those craft weigh between 25-50 pounds and are capable of speeds exceeding 100 miles per hour.

During its trials last month in the [Arizona](#) desert, [BAE Systems](#) used Class-2 drones as targets for five APKWS-guided [counter-UAS](#) rockets fired from a containerized weapon system – racking up a 100% defense rate against the rapidly-moving craft.

The company is refocusing its APKWS-guided 70mm munitions work as a potential answer to the way smaller UAVs are transforming how conflicts around the world are being waged. <https://dronedj.com/2022/12/30/bae-systems-test-apkws-guided-rockets-for-small-drone-defense/>

Finnish drone company to trial same-day newspaper delivery to lake island residents Bruce Crumley - Dec. 30th 2022



A [Finnish](#) company is preparing to give local dailies a lift by assuring [prompt delivery](#) of papers to subscribers on secluded lake islands south of the city of Tampere.

Lentola Logistics is preparing [a trial program to deliver](#) newspapers by drone to residents of Saarikylät, an area covering seven villages on different islands in one of Finland's countless lakes. Lentola Logistics CEO Markus Hohenthal plans to use the [UAVs to fly](#) the dailies to readers eager to get their news the same day it's published, rather than wait up to several days for papers to be distributed by car or mail services.

Hohenthal will conduct the trial over a three-month period next year, using Lentola Logistics' tail-sitting vertical takeoff and landing (VTOL) [drone to deliver](#) a few newspapers per flight – or as many as its 3.5 kg. internal payload can hold.

The service will be limited to a 20-kilometer zone, which – based on his UAV's 80 km/h flight speed and the minute needed for descent to drop cargo – should enable missions of under half an hour each. Hohenthal figures that should allow each drone to delivery about **100 newspapers each day** – a service subscribers have said they would be willing to pay more to be able to read their news before it's ancient history. <https://dronedj.com/2022/12/30/finnish-drone-company-to-trial-same-day-newspaper-delivery-to-lake-island-residents/>



UAS and SmallSat Weekly News

2022 drone market forecasts: optimism but uncertainty over demand for complex services

January 1, 2023 Philip Butterworth-Hayes



Market forecasts for the value and growth of the commercial small drone sector over the next few years have shown a slight increase in predicted annual compound annual growth (CAGR) rates between 2022 and 2030 – up from 23.3% in 2021 to **24%** during 2022 – according to the latest forecasts-of-forecasts for the drone industry by *Unmanned Airspace*.

In its 2022 survey Teal Group predicted non-military drone production will jump from \$7.2 billion a year to \$19.8 billion by 2031, a 9.1% compound annual growth rate in constant dollars. This is **down** from its 14.1% CAGR 2021/2022 forecast. And in its *Drone Market Analysis 2022-2030* from Drone Industry Insights, the company forecast a CAGR of 7.8% until 2030, down from a CAGR of 9.4% in its 2021 forecast. Even the Federal Aviation Administration – which admitted its predictions for 2020-2021 growth rates for the commercial sector of 21% CAGR was 5% lower than expected – is now predicting growth rates of between just 7% and 9% between 2026 and 2026. <https://www.unmannedairspace.info/news-first/2022-drone-market-forecasts-more-optimism-but-uncertainties-remain-over-demand-for-complex-services/>

Japan's Expo 2025 issues call for eVTOL operators to develop UAM network at show

December 28, 2022 Philip Butterworth-Hayes



The Japan Association for the 2025 World Exposition has opened a call for applications for the operators in the "Smart Mobility Expo" "Advanced Air Mobility" as part of the "Future Society Showcase Project Exhibition" starts.

Future Society Showcase Projects is a group of projects that provides experiences for a wide range of participants and visitors from Japan and abroad by utilizing technologies and services that support the theme of the Expo, "Designing Future Society for Our Lives" for the development, operation, exhibition, and events of the Expo site which will be a "People's Living Lab", in the form of "demonstration" that gives a sense of the future after 2025 and "implementation" that is suitable for Expo 2025 Osaka, Kansai, Japan.



UAS and SmallSat Weekly News

This project aims to implement the operation of eVTOLs between two ports inside and outside the Expo site. The Association invites companies and organizations to participate in the project. <https://www.unmannedairspace.info/latest-news-and-information/japans-expo-2025-organiser-issues-call-for-evtol-operators-to-develop-uam-network-at-show/>

DroneShield reports record AUD11 million order for counter drone equipment

December 21, 2022 Jenny Beechener



The order includes several different types of DroneShield counterdrone/C-UAS equipment. A substantial part of the order is expected to be delivered shortly, with the remainder in late March 2023. AUD11 million corresponds to the combined value of both phases of the project. Payment for each batch is expected to be received within a month of each delivery. The proceeds are expected to be

received across March and June 2023 quarters.

This large contract win follows several other wins for DroneShield in last couple of months. Other significant advancements include recommendation by the Joint Counter-small Unmanned Aircraft Systems Office as part of the SAIC Team's offering for deployment of its Counter-UAS as a Service across **US DoD**, a SBIR project awarded by US DoD with partner Quantum Research International, **the first US airport deployment** among other deployments across US, European and other Government customers, and appointment to the Australian Department of Defence Intelligence, Surveillance, Reconnaissance and Electronic Warfare Standing Offer Panel.

<https://www.unmannedairspace.info/counter-uas-systems-and-policies/dronesshield-reports-record-aus11-million-order-for-counter-drone-equipment/>

Oklahoma City DronePort Network and Osage to create AAM/drone testing corridor

December 21, 2022 Philip Butterworth-Hayes UAS traffic management news



Oklahoma City based DronePort Network has entered into a contract with Osage LLC to develop and manage Skyway 36 near Tulsa. This facility, the company says, is "important in the Tulsa Regional Advanced Mobility (TRAM) Corridor project" and is "one of four planned operating nodes, connecting Oklahoma State University, Osage and Tulsa facilities within a **114-nautical mile flight corridor** for Unmanned Aerial System and Advanced Air Mobility research and testing."



UAS and SmallSat Weekly News

The facility features “nearly 2,300 square miles of Class G airspace available for flight testing; a hangar; office space; a runway; and helipad space for Unmanned Aerial Systems and electric vertical take-off and landing vehicles.”

“This facility is nationally unique due to its proximity to an urban downtown complex and its future operation as a primary node to the Tulsa Beyond Visual Line of Sight Flight Corridor. The press release reports further that the \$38.2 million TRAM project is funded by the U.S. Economic Development Administration’s Build Back Better American Rescue Plan and anticipates “creating 30-40,000 jobs—the equivalent of \$3.5-5 billion in economic activity—over the first 2-3 years. <https://www.unmannedairspace.info/latest-news-and-information/oklahoma-city-droneport-network-and-osage-to-create-aam-drone-testing-corridor/>

Threat posed by drone swarms highlighted in national defense act passed by Congress December 20, 2022 Jenny Beechener Counter-UAS systems and policies



Flight Global [reports](#) that Congress believes the US military needs to find better ways to combat drones on the battlefield.

According to the news report, lawmakers think the Department of Defense needs to pay more attention to the threat posed by swarms of cheap, commercially available drones and develop technologies to counter them.

“The 2023 National Defense Authorization Act (NDAA), which governs DoD policy for the coming year, directs the Pentagon to investigate how swarms of unmanned aerial systems could be used by Russia, China, Iran, North Korea and non-state groups to endanger US military facilities. While individual drones are typically remotely piloted by a human operator, swarms concepts feature dozens of small aircraft flown and controlled by artificial intelligence, with minimal input from a human overseer.

“The 2023 NDAA passed by Congress on 15 December pays special attention to the threat of drone swarms, directing the Pentagon to conduct “analysis of the national security implications of swarming technologies such as autonomous intelligence and machine learning”. If the bill is signed into law by President Biden, DoD leaders would also be required to develop technical systems to counter such swarms and incorporate such a capability into the department’s existing military strategy. <https://www.unmannedairspace.info/latest-news-and-information/threat-posed-by-drone-swarms-highlighted-in-recent-national-defence-act-passed-by-congress/>



UAS and SmallSat Weekly News

Drone Delivery Canada wins best delivery drone service at the 2022 Droning Awards January 2, 2023 News



Drone Delivery Canada Corp. is honored to announce that its drone logistics solution has been named Best Delivery Drone Service at The Droning Company's Annual Droning Awards. Winners were announced in a video reveal and are identified as the companies, products and pilots who led the industry in 2022.

Known as the one-stop shop for drone pilots, The Droning Company is an online community dedicated to keeping drone enthusiasts informed of the news, products, and updates in the industry. The Droning Company was named The World's # 1 Resource for the Drone Community. To honor and celebrate this community, the Droning Company created The Droning Awards to recognize and celebrate outstanding drone innovations for 2022 and allow drone pilots and enthusiasts to vote in a series of categories.

The DDC drone logistics system is a complete turnkey solution, offered as a managed service and includes proprietary software, hardware (drones and supporting infrastructure), and all professional services to support and operate this solution.

https://uasweekly.com/2023/01/02/drone-delivery-canada-wins-best-delivery-drone-service-at-the-2022-droning-awards/?utm_source=rss&utm_medium=rss&utm_campaign=drone-delivery-canada-wins-best-delivery-drone-service-at-the-2022-droning-awards&utm_term=2023-01-02

3rd International Drone Show Competition Winners Announced January 2, 2023 News



Riga, Latvia – The 3rd International Drone Show Competition, initiated by SPH Engineering's Drone Show Software team, announces its results.

Participants from **31 countries** competed for the right to get to the final and become the winner in one of 5 categories. Winners of the 3rd International Drone Show

Competition:

- 2 winners in the "Best drone show animation" nomination: [Drone Show Animations](#) team from Portugal & Diffuse x Titouan Malivoir from France,



UAS and SmallSat Weekly News

- “Best drone show storytelling” nomination winner: [Celestial](#) from the United Kingdom,
- 2 winners in the “Best drone show at the event” nomination: Kaohsiung City Government Bureau of Cultural Affairs from Taiwan & Andrei Golenev from the United Arab Emirates,
- “Best promotional drone show” nomination winner: [Lumasky](#) from the United Arab Emirates,
- “Best integrated show: Fireworks and Drones” nomination winner: [Sky Elements](#) from the United States of America.

https://uasweekly.com/2023/01/02/3rd-international-drone-show-competition-winners-announced/?utm_source=rss&utm_medium=rss&utm_campaign=3rd-international-drone-show-competition-winners-announced&utm_term=2023-01-02

Falco Xplorer completes first flight campaign, a decisive step toward certification

January 2, 2023 News



The Falco Xplorer is the first MALE (Medium Altitude Long Endurance)-class uncrewed system to exclusively use European technology.

The recent flight testing and certification activities of the Falco Xplorer took place at the Trapani Birgi military airport in Sicily with the support of the Italian Air Force’s 37°Stormo wing. During the flight tests, 37°Stormo provided all essential airport services including air traffic assistance, fire prevention and flight safety. This ensured that the flight campaign was conducted in complete safety and in accordance with sector regulations. The Falco Xplorer performed all planned flights on schedule and completed a range of complex functional tests, confirming the maturity of the platform. The behavior of the aircraft in several phases of the flight envelope was also validated.

Leonardo will now move forward with a second test campaign which will take place under the supervision of the Directorate for Aeronautical Armaments and Airworthiness.

https://uasweekly.com/2023/01/02/falco-xplorer-completes-first-flight-campaign-a-decisive-step-toward-the-certification-of-the-uas/?utm_source=rss&utm_medium=rss&utm_campaign=falco-xplorer-completes-first-flight-campaign-a-decisive-step-toward-the-certification-of-the-uas&utm_term=2023-01-02



UAS and SmallSat Weekly News

This NYE fireworks drone show just broke two world records [Video] Ishveena Singh - Jan. 2nd 2023



The United Arab Emirates has welcomed 2023 in style with a record-breaking drone show. A dazzling 12-minute display of over **670 drones**, covering 4.7 km of beachfront and reaching a height of 1,100 meters, smashed **two Guinness World Records** titles as Ras Al Khaimah, the northernmost emirate of the UAE,

ushered in the New Year.

The drone show was a part of a jaw-dropping pyro-musical performance that included a larger-than-life fireworks display. Drones took shape in the sky to help the crowd count down to midnight before signaling new beginnings with the highest-ever “Happy New Year 2023” message.

According to Guinness World Records, Ras Al Khaimah’s NYE drone show has secured the title of the “largest number of operated multirotors/drones with a simultaneous fireworks display” with a record-breaking 671 operated drones. It also set a brand-new world record for the “largest aerial sentence formed by multirotors/drones” with 673 drones. Here are the highlights from the show at a glance, followed by the full 12-minute video below:

<https://dronedj.com/2023/01/02/nye-drone-show-world-record/#more-89896>

Ukraine downs 89 Iranian loitering drones Russia fired in the opening hours of 2023 Bruce Crumley - Jan. 2nd 2023



If such a thing can exist in a merciless and escalating military onslaught, the good news out of bomb-rocked Kyiv today is its forces shot down 44 of the Iran-made Shaded-136 [drones](#) that [Russia](#) launched overnight in its ongoing New Year’s aerial attacks on [Ukraine](#).

Russia began battering Kyiv and eastern parts of Ukraine in the run-up to New Years with a mix [of armed drones, missiles, and other aerial weapons](#), including 51 Shahed-136 loitering munitions supplied by Iran launched during the night of January 1 and dawn today. [According](#) to the Defense Forces of Ukraine, 44 of those UAVs were destroyed before reaching their targets.



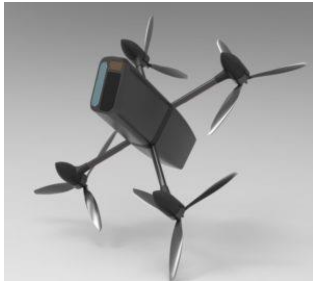
UAS and SmallSat Weekly News

Ukraine President Volodymyr Zelenskyy had previously said 45 of the [Iran-made drones](#) were shot down during the first day of the new year as Russia continued pummeling areas of Kyiv and cities in the eastern part of Ukraine nearest the border.

The renewed success of [Ukraine forces in blowing](#) the UAVs up before they can strike fortunately not only coincides with the brutal New Year's offensive but also with reports that Russia has received up to **1,400 additional Shaheds** from Iran to supplement its depleted initial supply. <https://dronedj.com/2023/01/02/ukraine-downs-89-iranian-loitering-drones-russia-fired-in-the-opening-hours-of-2023/#more-89905>

3Jan23

DRONELIFE Enters Our 10th Year! Our Top 3 Predictions for the Drone Industry in 0223 Miriam McNabb January 02, 2023



In 2022, we've seen drones used to create sophisticated 3D models of assets like telecom towers, assist police and swat teams with two-way communications, and carry sophisticated sensors to detect minute changes in atmosphere. We've progressed from having to watch the drone in front of you while you manipulated joysticks to the possibility of operating a drone on Mars from the safe comfort of an office on Earth.

3 Predictions for the Drone Industry in 2023. As we look back at the amazing changes we've seen in the last decade, we're looking forward with optimism and excitement to next year. Here are our top 3 predictions for the drone industry in 2023.

- 1. Drone Delivery Comes to a Retail Store Near You.** It's taken several years for drone delivery to get real – and legal. Finally, 2022 saw Walmart expand their standard drone delivery program to serve millions of households with drone services partner [DroneUp](#). Flytrex has partnered with fast food outlets in multiple states. Wing and Zipline have moved into the U.S. Matternet received the first ever type certification in 2022. With BVLOS flight becoming ever more common – even without a published rule – and type certification moving forward, drone delivery is poised to scale at last.
- 2. Counter Drone Technology Gets Implemented.** Counter drone technology is an important partner for the commercial drone industry. As cUAS technology continues to advance and more drones, both commercial and recreational, fill the skies we predict



UAS and SmallSat Weekly News

that infrastructure and energy companies will lobby to be able to put counter drone systems in place.

- 3. Drones Operated from a Central Command Post Become Standard on Industrial Sites.** Sooner or later – and we all hope for the former – the FAA will release a NPRM on drone flight beyond visual line of sight (BVLOS). When that happens, we predict that companies, law enforcement, and government entities will move quickly to implement remote operations for security, monitoring, or maintenance applications using drone-in-a-box solutions operated from a central command post.

<https://dronelife.com/2023/01/02/dronelife-enters-our-10th-year-our-top-3-predictions-for-the-drone-industry-in-2023/>

H3 Dynamics and ARO Introduce Drone in a Box Subscription Model Miriam

McNabb January 02, 2023



[H3 Dynamics](#) and [ARO](#) introduce a drone in a box subscription service, combining hardware and software to lower barriers to adoption.

H3 Dynamics and ARO partnered in 2022 on a commercial drone in a box solution, with ARO providing customer services and business support for H3 Dynamics in the U.S.

“H3 Dynamics and ARO are preparing the scale-up for a new Robot-as-a-Service (RaaS) economy, by removing conventional robotics CAPEX purchasing models and transitioning to a bundled single monthly service fee that ties on-demand aerial data services to any hardware installation,” says a joint press release.

“By taking technology and financial complexity out of the system, our enterprise clients can focus on improving their business outcomes, while we can accelerate the scale-up of our autonomous remote sensing services” said Jarat Ford, GM North America at H3 Dynamics.

<https://dronelife.com/2023/01/02/lowering-the-barriers-to-adoption-h3-dynamics-and-aro-introduce-drone-in-a-box-subscription-model/>



UAS and SmallSat Weekly News

TAKE A DRONE TOUR OF THE NEW DJI HEADQUARTERS December 26, 2022 Sally French



The new DJI headquarters opened this year — and it's only fitting that you get a drone tour of the incredible facility. The drone maker's headquarters building is based in **Shenzhen, China**, and opened in

September 2022 under the moniker "DJI Sky City."

The team at DJI turned to its [Avata drone](#), one of the newest drones in its lineup, to film the video tour of its headquarters. The FPV-inspired, Cinewhoop style drone launched in August 2022, and it's marketed as an excellent tool for indoor drone flying for several reasons including its small size and that it has built-in propeller guards which protect not just the drone itself and other people, but also reduces bumps and scratches should the drone hit a wall.

The Avata drone was used to create a spectacular, 2-minute-long one-shot style video which is absolutely a feat of flying. What's more impressive is that the drone also enters past security, through doors and around offices (even flying between computer monitors and over employee heads), making for what was an incredible production feat. It gets in close with other drones too. Watch the video here: <https://www.thedronegirl.com/2023/01/03/take-a-drone-tour-of-the-new-dji-headquarters/>

Autonomous Firefighting Drone Market Set for Growth INSIDE UNMANNED SYSTEMS DECEMBER 15, 2022



The global autonomous firefighting drone market will reach a valuation of nearly **\$1.92 million in 2023** and is expected to progress at a CAGR of **16.7%** to reach nearly \$9 million by the end of 2033, so reports **FactMR**, a global market research firm headquartered in **Dubai**.

According to the firm, sales of autonomous firefighting drone accounted for a nearly 12% share of the global autonomous drone market at the end of 2022. The analysis covers **30-plus countries**, with the U.S. and Europe each representing a third of the 2023 market and China responsible for an additional 11%.



UAS and SmallSat Weekly News

Drones can fill a major gap in firefighting. Estimates from the National Fire Protection Association state that 54% of high-rise apartment buildings, 45% of high-rise hotels and 41% percent of high-rise business buildings in the United States lack sprinkler systems, with 7% experiencing sprinkler system failures during fires. As populations grow and building densities rise, high-rise structures are particularly vulnerable.

https://insideunmannedsystems.com/autonomous-firefighting-drone-market-set-for-growth/?utm_campaign=InnovateEnergy%20Content&utm_medium=email&_hsmi=240212834&_hsenc=p2ANqtz-8jSYlJr1vcK40ywGAcKaNI_Jd4x9GUwWtYJnCQVDimWkCbnVCjAiSiYkzadtZtLjsrCW6yNiyfc63tn22AzA1gpVqk0g&utm_content=240212834&utm_source=hs_email

AAC awarded NASA contract for new tilt-wing drone design and development 16

December 2022



Advanced Aircraft Company (AAC), a developer and manufacturer of distributed electric propulsion tilt-wing and multi-rotor uncrewed aircraft vehicles, today announced it has secured a contract from NASA to design and build tilt-wing prototype uncrewed aerial vehicles according to NASA specifications.

AAC pushes the boundaries with innovative new approaches to the fuselage, propulsion, and aerodynamic designs for next-generation UAVs. To exceed NASA's technical requirements for this project, AAC will develop a **unique aero-activated tilt-wing** configuration that removes the weight and complexity of a mechanically actuated tilt-wing aircraft for increased reliability and payload capacity.

"Aero-activated tilt wing configurations offer benefits over conventional configurations, but also introduce significant design challenges," said **Bill Fredericks**, founder, and CTO of AAC.

"Careful design of the center of mass location of the wing body, aerodynamic center of the wing body, and attachment points to the fuselage are critical for establishing a stable equilibrium point to ensure safe and reliable operation."

https://www.suasnews.com/2022/12/aac-awarded-nasa-contract-for-new-tilt-wing-drone-design-and-development/?utm_campaign=InnovateEnergy%20Content&utm_medium=email&_hsmi=240212834&_hsenc=p2ANqtz-9yT805J1RZroKS5j6D_hlsatn7HZxtlHcfLRL5t2PCcF-dZAqrzIP2gjD-8RxxwrgaljiF3teAy3TPjWOisAQYhEMeloQ&utm_content=240212834&utm_source=hs_email



UAS and SmallSat Weekly News

Volocopter Heavy-Lift Cargo Drone Completes Deconfliction Test Flights Phoebe

Grinter / 07 Dec 2022



Volocopter has completed a two-week test flight campaign for its VoloDrone multi-rotor heavy-lift cargo carrier at the DLR National Experimental Test Centre for Unmanned Aircraft, Magdeburg-Cochstedt Airport, **Germany**.

The series of test programs were part of the European-funded CORUS-XUAM project, focusing on integrating the digital Air

Traffic Management (ATM) and Unmanned Traffic Management (UTM) interfaces to allow new airspace users to safely be introduced into the existing airspace.

Volocopter believes that for the Urban Air Mobility (UAM) industry to establish itself and scale up, electric Vertical Takeoff and Landing (eVTOL) aircraft like the VoloDrone must be able to seamlessly fly among more established aircraft that occupy the same lower airspace.

Currently, ATM systems are not designed to handle the upsurge in aircraft volumes or the digitization of UAM. Harmonizing existing and new traffic management systems for brand-new aircraft integration aims to ensure efficient large-scale operations.

Volocopter believes successfully completing this CORUS-XUAM test flight is another step toward UAM integration into the lower airspace as the company aims for entry into commercial service by **2024** in major cities such as Paris and Singapore.

https://www.unmannedsystemstechnology.com/2022/12/volocopter-heavy-lift-cargo-drone-completes-deconfliction-test-flights/?utm_campaign=InnovateEnergy%20Content&utm_medium=email&hsmi=240212834&hsenc=p2ANqtz--JH6cJYSasfXvV2FSfUg0qwk6sl5e--k1TzdgnPANeGrYGXyZXqzuspimg5vNDQQnaxWSege7nXzeWr2SVxvGU8YTmiQ&utm_content=240212834&utm_source=hs_email

Aerospace Company Missiya to Officially Launch “Super” Drone January 3, 2023

News

Unmanned Aerial Vehicles manufacturer Missiya, Tbilisi, Georgia, will launch M-22Q1 Zakal in January 2023, a next-generation drone that can carry up to **6 kilograms** of payload, fly in almost any weather conditions to 30-40 kilometers, and stay in the air between **45-60 mins**. The large quadcopter can reach speeds of **70kph and beyond** if restrictions are removed. The drone has several **360-degree onboard sensors** that prevent it from hitting obstacles.



UAS and SmallSat Weekly News



In addition, various professional cameras – high zoom camera, thermal imaging camera, laser range finder, GPS coordinate resolver, and much more – can be attached to the drone’s universal attachment point. The drone is also foldable for portability and will get the 4G/LTE cloud feature enabled in mid-2023.

Missiya drones have been used for firefighting operations in urban areas and forests. The drones can offer essential air support to help spot and ultimately prevent fires while coordinating with firefighting response teams. They can also aid rescue operations with their special high zoom, thermal, and night vision cameras. As seen above in the photo, the M-22Q1 Zakal is conducting an inspection on a hydroelectric dam using a high-resolution and high-zoom camera.

Beyond fire emergencies, Missiya drones have provided air reconnaissance and riot control and paramedics support, spotting injured victims and delivering vital medical kits. The response time and efficiency of Missiya drones are incomparable to traditional methods.

https://uasweekly.com/2023/01/03/aerospace-company-missiya-to-officially-launch-super-drone-m-22q1-zakal/?utm_source=rss&utm_medium=rss&utm_campaign=aerospace-company-missiya-to-officially-launch-super-drone-m-22q1-zakal&utm_term=2023-01-03

The Space Needle Rings in 2023 with Integrated Drone, Light, and Fireworks Celebration January 3, 2023 News



For the first time ever, 200 drones were launched and projected off the Space Needle and synchronized with fireworks and light displays to create captivating formations. Ringing in 2023, T-Mobile New Year’s at the Needle is one of the largest structurally launched fireworks shows in the world. These new choreographed elements

produced a cohesive and innovative New Year’s spectacular, using hundreds of drones, explosive pyrotechnics, and elaborate lighting effects simultaneously throughout the 11-minute show.

At 11:59PM, cutting-edge drones burst into the sky to provide a numerical countdown to the big show, which was synced to an all-star playlist celebrating some of the biggest music and pop



UAS and SmallSat Weekly News

culture moments of the year. The soundtrack was crafted to bring together local and global artists and reach across generations.

“Our goal for this New Year’s celebration was to create a world of joy for viewers,” said Randy Coté, Chief Marketing Officer for the Space Needle. “We hope this show served as a spark that ignites 2023 to become our best year yet! Whether the show was a chance to celebrate, reflect on the past, or look ahead to a brighter future, we hope it becomes a launching pad to an optimistic and joyful new year around the world.” https://uasweekly.com/2023/01/03/the-space-needle-rings-in-2023-with-first-ever-integrated-drone-light-and-fireworks-celebration/?utm_source=rss&utm_medium=rss&utm_campaign=the-space-needle-rings-in-2023-with-first-ever-integrated-drone-light-and-fireworks-celebration&utm_term=2023-01-03

4Jan23

DroneShield’s DroneGun Protects Brazil’s Presidential Inauguration, Neutralizes 4 Drones Miriam McNabb January 03, 2023



Lula da Silva, a 77 year-old who already served as Brazil’s president from 2003 to 2010, is taking the presidential office for the third time. The ceremony, held at the Cathedral Brasilia, was heavily guarded in response to threats of violence from supporters of da Silva’s predecessor, Jair Bolsonaro.

Presidential security utilised DroneGun Tactical™, as pictured in the Brazilian media image below, to neutralize four suspicious drones that were heading towards the President at the inauguration event.



A security agent walks with DroneShield’s DroneGun Tactical™ next to the presidential Rolls-Royce

DroneShield’s DroneGun Tactical™ uses high performance directional antennas “to select and engage the range of jamming frequencies for target defeat,” says the company. “...When disruption is triggered, UAS targets (e.g.

drone) will respond via vertical on the spot landing or return to its remote controller or starting point.” The DroneGun neutralizes suspicious drones with non-kinetic jamming technology.

<https://dronelife.com/2023/01/03/dronesields-dronegun-tactical-counter-uas-protects-brazils-presidential-inauguration-neutralizes-4-suspicious-drones/>



UAS and SmallSat Weekly News

Automated Warehouse Drones: Inventory Audits with 99.7% Accuracy

[VIDEO] Miriam McNabb January 03, 2023



VIMAAN automated warehouse drones are working nights – flying through warehouses to perform inventory audits. DesignWorldOnline [reports](#) that customers say [VIMAAN's StorTRACK AIR](#) can capture 1,500 locations per hour.

As labor shortages persist, automated warehouse drones and robotics solutions offer companies a force multiplier to perform more tasks during off hours. The company says the aircraft is the **first of its kind**: totally automated and integrated into the customer's warehouse management system. With the VIMAAN ViewDeck system, customers can compare data stored in the system to data scanned by the drone for greater accuracy.

The StorTRACK AIR automated warehouse drones don't just scan barcodes. Sensors gather data from floor to ceiling and can create a 3D digital model of the warehouse space and read not only barcodes, but other label information. AI-powered analytics can provide more data, such as locating empty bins. <https://dronelife.com/2023/01/03/automated-warehouse-drones-inventory-audits-with-99-7-accuracy-video/>

GA-ASI Announces Strategic Partnership with Bharat Forge to Manufacture Aerostructures

January 4, 2023 Military | News



In a major move to boost manufacturing in India, General Atomics Aeronautical Systems, Inc. (GA-ASI) and Bharat Forge Limited, India have announced a partnership to manufacture main landing gear components, subassemblies, and assemblies of **remotely piloted aircraft**. Part of the Kalyani Group, Bharat Forge is the largest repository of metallurgical know-how, design and engineering expertise, and manufacturing prowess in India.

Bharat Forge Limited has a state-of-the-art, digitally integrated manufacturing, assembly, and testing facility for aerospace components and systems. It manufactures structural and engine parts and subsystems for aircraft and engines for both civil and military applications.

<https://uasweekly.com/2023/01/04/ga-asi-announces-strategic-partnership-with-bharat-forge-to->



UAS and SmallSat Weekly News

[manufacture-aerostructures/?utm_source=rss&utm_medium=rss&utm_campaign=ga-asi-announces-strategic-partnership-with-bharat-forge-to-manufacture-aerostructures&utm_term=2023-01-04](https://www.axcelinnovation.com/news/manufacture-aerostructures/?utm_source=rss&utm_medium=rss&utm_campaign=ga-asi-announces-strategic-partnership-with-bharat-forge-to-manufacture-aerostructures&utm_term=2023-01-04)

Incubation hub Etc. backs Altitude Angel to make the UK a global leader for drone operations January 4, 2023 News



Etc., the incubation team in [BT Group's Digital unit](#) boosting the businesses of the future, today announces that it has entered into a **£5 million** deal with [Altitude Angel](#), a world-leading UTM (Unified Traffic Management) technology provider, as the two businesses scale the UK drone industry and support the development of the UK's drone superhighway, set to be **the largest and longest network of its kind in the world**.

UTM is the software platform and infrastructure needed to allow drones to fly safely, without a pilot, over large distances. The £5 million deal will accelerate Altitude Angel's roll-out of its **transformative ARROW technology**, which detects and identifies drones, while also enabling drones to share the airspace with crewed aviation safely and securely.

The deal is a critical steppingstone in enabling Altitude Angel to scale its technology to allow long distance drone flights, supporting the potential for faster delivery of essential and non-essential items and unlocking an industry estimated to be worth £45bn by 2030*. The deal is crucial to drone innovation, supporting commercial and retail use cases, but also enabling drones to transform how essential services function – from supporting the emergency services with real-time search and rescue, fast transportation of medical supplies, farming analysis, and architectural planning. https://uasweekly.com/2023/01/04/bt-groups-incubation-hub-etc-backs-altitude-angel-to-make-the-uk-a-global-leader-for-commercial-automated-drone-operations/?utm_source=rss&utm_medium=rss&utm_campaign=bt-groups-incubation-hub-etc-backs-altitude-angel-to-make-the-uk-a-global-leader-for-commercial-automated-drone-operations&utm_term=2023-01-04

Archer, car giant Stellantis ink major eVTOL air taxi production deal Bruce Crumley - Jan. 4th 2023

Next-generation [electric vertical takeoff and landing](#) (eVTOL) [aircraft manufacturer Archer](#) has announced a significant deepening of its industrial and strategic partnership with European automotive giant Stellantis, under which the producer of Chrysler, Fiat, Peugeot, and other car



UAS and SmallSat Weekly News

brands will contribute advanced manufacturing technology, expertise, and capital to the operation of the [air taxi](#) company's future Covington, Georgia, [Midnight plane](#) factory.



Stellantis and Archer said they'd significantly deepened their previous cooperation by formally uniting their forces in the production of the [Midnight eVTOL](#), with the Santa Clara-based startup bringing its [advancing air taxi development](#) experience and the automotive company providing large-scale manufacturing capacities, experienced personnel, and cash via two different forms of equity stakes.

According to a [press release](#) from the two companies, the accord calls for Stellantis' automotive production muscle to enable the rapid scaling of air taxi manufacturing at pace with the startup's post-certification [eVTOL](#) marketing plans. At the same time, that cooperation will permit Archer to launch and [ramp up its aircraft output activity](#) without having to invest the heavy funds that such zero-to-one industrial launches usually require.

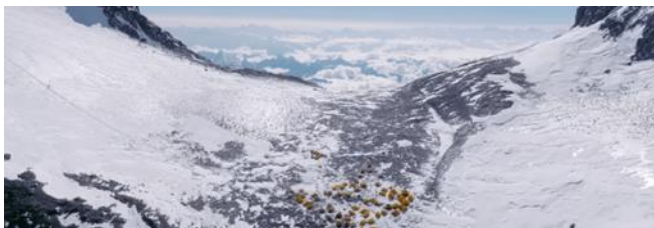
Stellantis' objective under the deal is to mass-produce Archer's [eVTOL aircraft](#) as its exclusive contract manufacturer, while also increasing its equity stake in its air taxi partner through **\$150 million** in capital it is making available over the next two years. Amsterdam-based Stellantis also plans to purchase publicly traded shares in Archer to reinforce its existing position.

<https://dronedj.com/2023/01/04/archer-car-giant-stellantis-ink-major-evtol-air-taxi-production-deal/>

5Jan23

DRONE FLIES OVER MOUNT EVEREST: HERE'S HOW THE STUNNING FEAT WAS DONE

December 29, 2022 Sally French



Not a lot of people on Earth can claim to have summited Mount Everest. And only a few can claim to have summited it with a drone in hand — and to have flown that drone once at the top.

A team of photographers from 8KRAW Films, which is a Chinese videography and photography organization, partnered with DJI to test how they could fly a drone in a highly challenging environment.



UAS and SmallSat Weekly News



Their drone of choice was the [DJI Mavic 3 drone](#), which weighs 895 grams. It can handle 12 m/s of wind resistance, to be expected on the high mountains, and of course has a gorgeous Hasselblad camera with a 4/3 CMOS and 20 MP to capture photos from up high.

The whole flight happened May 27, 2022. But it took some serious months of planning. Back on March 1, 2022, the photographers met with DJI engineers to make theoretical calculations about what it would take to fly from the summit. At roughly 30,000 feet, the air pressure (and density) is only about a quarter of what you'd find at sea level.



On May 27, 2022, the team reached the summit with a drone in hand. And at the top, they launched the Mavic 3, making them **the first climbers to launch a drone from the top of Everest.**

Not only is the footage incredible, but DJI engineers were able to collect data from the flights, which they will likely use on development of future drone technology. DJI won't divulge its learnings, but it is sharing the video of the incredible Mount Everest feat, put together by 8KRAW Films:

<https://www.thedronegirl.com/2023/01/05/drone-mount-everest/>

2022 drone market forecasts: optimism but uncertainty over demand for complex services

January 1, 2023



Market forecasts for the value and growth of the commercial small drone sector over the next few years have shown a slight increase in predicted annual compound annual growth rates between 2022 and 2030 – up from 23.3% in 2021 to 24% during 2022 – according to the latest forecasts-of-forecasts for the drone industry by Unmanned Airspace. But these high-level figures **hide the market uncertainty** for more complex operations, such as BVLOS missions, flights over people and more autonomous operations.



UAS and SmallSat Weekly News

As the regulations ease to allow for more BVLOS operations, demand for more commercial small UAS services should soar. But the more conservative forecasters during 2022 lowered their expectations of growth in this sector.

For example, in its 2022 survey, Teal Group predicted non-military drone production will jump from \$7.2 billion a year to \$19.8 billion by 2031, a 9.1% compound annual growth rate in constant dollars. This is down from its 14.1% CAGR 2021/2022 forecast. And in its Drone Market Analysis 2022-2030 from Drone Industry Insights, the company forecast a CAGR of 7.8% until 2030, down from a CAGR of 9.4% in its 2021 forecast. Even the Federal Aviation Administration – which admitted its predictions for 2020-2021 growth rates for the commercial sector of 21% CAGR was 5% lower than expected – is now predicting growth rates of between just 7% and 9% between 2022 and 2026.

<https://www.legendaryleadersininnovation.com/public/topics/23/UAS>

6Jan23

SwissDrones Scores Another Funding Round for Uncrewed Helicopter

Systems Miriam McNabb January 04, 2023



Uncrewed helicopter systems are a growing niche in the drone industry, providing the power and maneuverability of a helicopter without the expense or risk of an onboard pilot. Now, another round of funding for SwissDrones uncrewed helicopter systems will help boost the company's global expansion.

"[SwissDrones](#), a global manufacturer of long-range uncrewed helicopter systems for

inspection, surveillance and public safety applications, today announced that it has secured additional **7-figure funding** in a round led by [DiamondStream Partners](#), an aviation and aerospace venture capital firm, with participation from existing investors. SwissDrones plans to use the funding to accelerate product development and expand global go-to-market activities," says the company press release.

"We see SwissDrones as leaders in bringing next-generation aviation technology to critical use cases in infrastructure inspection, aerial surveillance and public safety," said David Spurlock, Managing Director of DiamondStream Partners. "The combination of the payload/range of the



UAS and SmallSat Weekly News

aircraft, a focus on customer service needs, and a platform that will enable high levels of asset utilization are set to bring disruptive economics to catalyze growth in these market segments.”

<https://dronelife.com/2023/01/04/swissdrones-scores-another-funding-round-for-uncrewed-helicopter-systems/>