



UAS and SmallSat Weekly News

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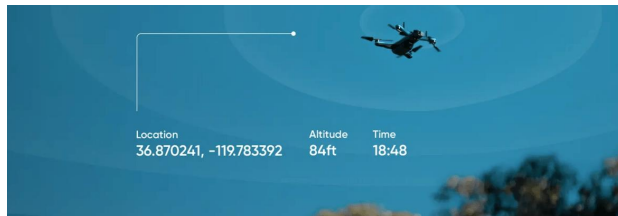


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10Sep22

REMOTE ID REGULATION GOES INTO EFFECT NEXT WEEK. WHAT YOU NEED TO

DO September 8, 2022 Sally French



While the rule technically goes into effect this month, it goes into effect in phases. The first phase pertains to manufacturers only — stating that newly-manufactured drones must be Remote ID compliant. The second phase

which applies to pilots doesn't kick in until next year.

After much deliberation, many committees and plenty of requests for public comment, the FAA in April 2021 published its [Final Rule for Remote ID](#). In short, that rule requires drones to remotely identify themselves.

Remote ID is broken into two phases: the first is for drone manufacturers. The second is for drone pilots. For drone manufacturers, a lot is set to change. For drone pilots, noticeable changes don't kick in until next year.

The Remote ID rules will apply to most drones though there are some exceptions including:

- drones flown for U.S. Department of Defense or other federal agencies with an exemption to the operating rules.
- flights within an FAA-recognized Identification Area
- drones that weigh 0.55 pounds or less and that are used exclusively for recreational purposes

And even still, the FAA has suggested that enforcement will be unlikely for the time being.

A [document set to publish on the Federal Register on Sept. 12](#) states that the FAA will exercise "its discretion whether to take enforcement action" between now and Dec. 16, 2022. That gives drone makers another three months to figure things out.

<https://www.thedronegirl.com/2022/09/09/remote-id-regulation/>



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Flyability Funding: More than \$22 Million for Makers of Elios Indoor Inspection

Platform Miriam McNabb September 08, 2022 by DRONELIFE Staff Writer Ian M Crosby



Flyability funding got a major boost this week as the company celebrated a 15 million Swiss Franc (CHF) Series C funding round, augmenting their previous CHF 7 million. (CHF 22 million is currently about **\$22,645,000.**) The company's unique Elios 3 collision safe platform for indoor inspection was on display this week on the floor of [Commercial UAV Expo](#) in Las Vegas.

Leading indoor inspection drone company [Flyability](#) announced its acquisition of CHF 15 million during a Series C funding round, in addition to a previously closed CHF 7 million. Led by Japan's [SBI Investment](#), the round saw participation from new investors [Cargill](#) and [Verve Ventures](#), as well as existing investors such as Dow, ETF Partners, Swisscom, and Future Industry Ventures.

Flyability co-founder and CEO Patrick Thévoz said, "The company is currently growing extremely fast, with close to **a thousand customers and offices in the USA, Singapore, China, and Lausanne**, fueled by the huge traction for our new product platform, the recently-launched Elios 3."

Specializing in drone technology for clients in the mining, power generation, energy, chemical, wastewater, and maritime sectors, Flyability increases worker safety by offering solutions that enter confined spaces in place of inspectors. This technology also reduces downtimes for inspections, cutting down on expenses. Prior to investing in Flyability, Cargill and Dow have been major customers, utilizing Flyability's inspection technology to keep their workers out of potential harm. <https://dronelife.com/2022/09/08/flyability-funding-more-than-22-million-for-makers-of-elios-indoor-inspection-platform/>

United to Invest \$15 Million in Flying-Taxi Maker Backed by Embraer

Alison Sider
Sept. 8, 2022

[United Airlines Holdings](#) Inc. [UAL 1.04%](#) ▲ is making another bet on flying taxis with a \$15 million investment in Eve Air Mobility, a company backed by the aircraft manufacturer [Embraer ERJ 2.17%](#) ▲ SA.



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The airline said it has struck a conditional agreement to buy 200 of the four-passenger electric aircraft Eve is developing, with options to buy another 200. United said it expects the first deliveries of Eve’s aircraft as soon as 2026.

United, which last month put down a \$10 million deposit for [100 electric flying taxis](#) being developed by [Archer Aviation](#) Inc., said it would need hundreds of the aircraft to serve what it expects [to be a booming market](#) in the coming years.

The aircraft being developed by Eve, Archer and other startups will take off and land vertically like helicopters.



United expects one-way trips to cost about \$100 to \$150—on par with Uber Black service from Manhattan to Newark Liberty International Airport, said Michael Leskinen, president of United’s venture-capital fund for early-stage technologies.

[Eve Holding](#) Inc. [EVEX 2.85%](#)▲ went public earlier this year, and Embraer is its largest shareholder. Eve has access to Embraer’s service centers, parts warehouses, and field-service technicians, which United said would facilitate operations. <https://www.wsj.com/articles/united-to-invest-15-million-in-flying-taxi-maker-backed-by-embraer-11662607183>

First Drone Earns FAA Type Certificate Kate O’Connor September 8, 2022



The Matternet M2 has become the first non-military unmanned aircraft system to earn its FAA type certificate. In an announcement on Wednesday, drone delivery system developer Matternet stated that the M2 underwent **four years of evaluation by the FAA** prior to certification. The company noted that the M2, along with several other drone models, has been used in the U.S. for Part 135 on-demand air carrier operations under an exemption while being evaluated.

“This is a victory for not only Matternet, but for the whole UAS industry as it indicates a maturing of the industry and a shift away from exemptions and waivers towards more standard regulation,” said Jim O’Sullivan, Matternet vice president of regulatory strategy. “Matternet would like to thank the FAA, as well as our advisors at End State Solutions.”



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The Matternet M2 is designed to carry payloads of up to 2 kilograms (4.4 pounds) and 4 liters over distances of up to 20 kilometers (12.5 miles). The company [partnered with UPS](#) to launch the first revenue drone delivery operations in the U.S. in 2019. https://www.avweb.com/recent-updates/unmanned-vehicles/first-drone-earns-faa-type-certificate/?MailingID=1065&utm_source=ActiveCampaign&utm_medium=email&utm_content=First+Drone+Earns+FAA+Type+Certificate%2C+Paul+Millner+On+Avgas+Market+Realities&utm_campaign=First+Drone+Earns+FAA+Type+Certificate%2C+Paul+Millner+On+Avgas+Market+Realities+-Friday%2C+September+9%2C+2022

Drone surf videos enhance footage shot on, in, and above waves Bruce Crumley - Sep. 9th 2022



The new videos were posted independent of one another and taken in spots that demonstrate the complementary and contrasting photographic capacities that [drones offer surf footage](#). Whereas earlier approaches used still or movie cameras shooting riders from the beach, in hovering helicopters, or from boats – all relatively static positions – UAVs can follow surfers as they advance on and respond to the continued changes peeling waves throw at them.

Perhaps better still, drones can maneuver into a variety of angles permitting clear, tight shots of surfers tucking into the grip of some spectacularly powerful breakers, or [simply remaining upright on waves](#) the size of several story buildings with the main objective of just not falling.

The first example of the enhancements drones afford surfing videos came from Reddit contributor [Oahusurfa](#), whose [“One year with the Mini 2”](#) footage features some frisson-generating Pipeline shots.

The pilot not only offers up an admirable mix of full-wave rides and shorter shots of surfers getting deep into pockets, but also shuffles in some ambient North Shore scenes – and a view of how very crowded even one of the world’s most unforgiving spots gets. See the videos... <https://dronedj.com/2022/09/09/drone-surf-video/#more-86419>



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FIXAR is equipping its 007 drone with YellowScan LiDAR system Ishveena Singh - Sep. 9th 2022



European drone manufacturer FIXAR is joining forces with LiDAR solutions specialist YellowScan to equip the FIXAR 007 fixed-wing VTOL with YellowScan Mapper+ OEM LiDAR mapping solution.

The FIXAR 007 is a fixed-wing drone, which is instantly recognizable because of its unique design. Instead of separate motors for vertical and forward flight, the VTOL utilizes fixed angled rotors.

The versatile aircraft can be used for a variety of commercial and industrial applications — including mapping and inspections, precision agriculture, oil and gas pipeline monitoring, surveillance, and border control — because it allows for sensor customization.

FIXAR's integration with YellowScan Mapper+ OEM, for example, is designed to ensure fast and precise laser scanning data acquisition and processing. Meanwhile, the georeferenced LiDAR point cloud generated will be processed to get accurate digital terrain or surface models used in many professional applications. <https://dronedj.com/2022/09/09/fixar-007-drone-lidar-mapping/#more-86404>

11Sep22

COA Research Initiative with NASA charles@droneresponders.org



I am writing to ask for your assistance. NASA is interested in reviewing public safety COAs (Certificate of Waiver Authorization) for the purpose of helping to provide recommendations to achieve COAs quicker and to help provide guidance for the public safety case. This is a joint initiative between DRONERESPONDERS and NASA.

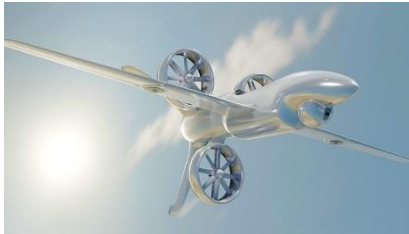
Feel free to share to your respective networks. If possible, would you please send me copies of your COA(s) and CONOPS? Please send to admin@droneresponders.org. <https://www.droneresponders.org/post/coa-research-initiative-with-nasa>



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12Sep22

DARPA developing small vertical-takeoff aircraft for military use Brett Tingley
published 3 days ago



A rendering of an advanced vertical takeoff and landing aircraft with an optical sensor ball on its nose. (Image credit: DARPA)

The program is known as Advanced airCRAFT Infrastructure-Less Launch And RecoverY X-Plane, or ANCILLARY. The program aims to develop a "leap-ahead" craft that can land and take off in areas without preexisting air bases or other infrastructure, operate in adverse weather conditions, and even deploy from the decks of naval vessels without specialized launch and recovery equipment. [DARPA](#) has not stated if the program is intended to develop a crewed or uncrewed craft, but a video released by the agency depicts pilots operating the craft with a tablet, implying a remotely piloted or [autonomous vehicle](#).

In addition to these objectives, the ANCILLARY program aims to develop a craft that has a low weight, can carry large payloads, and can stay in the air for extended periods. The agency has issued a notice inviting proposals from relevant industries and academic organizations for component technologies and manufacturing techniques that such an aircraft would require.

Steve Komadina, the DARPA program manager for ANCILLARY, said that any aircraft stemming from the ANCILLARY program would require bringing together "developments in advanced control theory, aerodynamic modeling, and advanced propulsion to solve a combination of challenging design objectives." <https://www.space.com/darpa-vertical-take-off-landing-aircraft-ancillary>

Watch Firefly Aerospace try to reach orbit for 1st time Mike Wall published 1 day ago



The Texas-based company plans to launch its Alpha rocket on a test mission from California's [Vandenberg](#) Space Force Base on Monday (Sept. 12) at 6 p.m. EDT (3 p.m. local California time; 2200 GMT).

This will be Alpha's second attempt to make it to orbit. The first try, which launched from Vandenberg on Sept. 2, 2021, [ended in a dramatic fireball](#) after the 95-foot-tall (29 meters) rocket suffered a major anomaly.



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The rocket will be carrying satellites on Monday's mission, as it did during last year's launch. Flying aboard Alpha this time around are two tiny cubesats — Serenity, provided by the nonprofit Teachers in Space, which will gather flight data for educational purposes; and TES-15, a collaboration between NASA and San Jose State University that will test a de-orbiting "exo-brake." Alpha is also carrying a deployer called PicoBus that will eject a handful of even smaller "picoats" into orbit, [Firefly wrote in a mission description](#) (opens in new tab).

Alpha is an expendable rocket designed to give small satellites dedicated rides to orbit, much as Rocket Lab's 59-foot-tall Electron currently does. Alpha can loft 2,580 pounds to low Earth orbit at a price of \$15 million per launch, according to Firefly's [Alpha user's guide](#) (opens in new tab). <https://www.space.com/firefly-aerospace-second-test-flight-preview>

Ingenuity helicopter on Mars heads toward ancient river delta on 31st flight Mike Wall published 3 days ago



NASA's Ingenuity helicopter just flew for the 31st time on Mars, acing a short hop that took it closer to an ancient Red Planet river delta.

During the [Mars](#) sortie, which occurred on Tuesday (Sept. 6), the 4-pound [Ingenuity](#) flew for nearly 56 seconds and covered about 318 feet of horizontal distance, according to the [mission team's flight log](#) (opens in new tab).

The flight took Ingenuity toward the remnants of a long-dry river delta that the little chopper's robotic partner, NASA's [Perseverance rover](#), has been exploring for the past five months or so. <https://www.space.com/mars-helicopter-ingenuity-31st-flight-river-delta>

NASA will slam a spacecraft into an asteroid. This tiny witness will show us what happens. Tereza Pultarova published about 6 hours ago



The tiny LICIACube micro-satellite (in the lower right corner) will observe DART smash into asteroid Dimorphos.

When NASA's DART spacecraft smashes into asteroid Dimorphos on Sept. 26, it will have a silent witness: An Italian cubesat called LICIACube will watch the ground-



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breaking experiment in real time for eager scientists on Earth.

[LICIACube](#), or the Light Italian Cubesat for Imaging of Asteroids, is a 31-pound (14 kilograms) micro-satellite that has hitched a ride on [DART](#) (the Double Asteroid Redirection Test) to the [Didymos](#)-Dimorphos binary asteroid system. DART deployed the cubesat on Sunday (Sept. 11) at 7:14 p.m. EDT to give LICIACube 15 days to assume a safe position to observe DART's collision with Dimorphos. The impact is a first-of-its kind experiment designed to alter the orbit of a space rock in a crucial test of a [planetary defense](#) concept that may one day save the lives of millions of people on Earth.

LICIACube, fitted with two optical cameras, will follow DART toward Dimorphos and eventually settle in to watch the drama from a safe distance of 600 miles as the 1,345-pound spacecraft hits the rock on Sept. 26. <https://www.space.com/liciacube-readies-to-observe-dart-hit-asteroid>

New DroneUp Training, Testing and Research Center Shows Their Investment in People Miriam McNabb September 10, 2022 by Paul Rossi, DRONELIFE Contributor and Chief Operations Officer and Chief Pilot at Nine Ten Drones



The new [DroneUp](#) training, testing and research center is supporting rapid growth for the company and a career path for drone pilots.

It is 2022 and [Commercial UAV Expo](#) has fully recovered from the impact Covid-19 had on the conference since 2019. We are seeing crowds of newly licensed drone pilots and curious uncertified individuals attending Commercial UAV to find the abundance of work and employment opportunities that experts have been projecting for years. This year DroneUp is standing out above the rest when it comes to hiring and providing opportunity for professional growth.

DroneUp recently announced the launch of the DroneUp training, testing and research & development center at Richard Bland College in Petersburg, VA. The company currently employs over 300 people and is expecting the organization to **double in size by the end of 2022**. DRONELIFE sat down with Tom Walker to find out how the new facility will support DroneUp's rapid growth and to gain insight into how pilots might prepare and position themselves for a job/career with DroneUp. See the interview: <https://dronelife.com/2022/09/10/droneups-new-training-testing-and-research-center-shows-their-investment-in-people/>



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Hi Rise Window Washing and More: Lucid Spraying Drones Solve an Age-Old

Problem Miriam McNabb September 05, 2022 By Jim Magill



Innovative entrepreneurs continue to come up with new ways in which drones can be used to perform a wide range of jobs that had previously required human workers, more efficiently, at a lower cost and more safely, than was previously possible.

Charlotte, North Carolina Lucid Drone Technologies employs custom-built unmanned aerial vehicles to wash the exteriors of buildings, replacing the need of having workers get to tether themselves onto suspended platforms to perform that dangerous job.

Lucid CEO Andrew Ashur said the founders of the company discovered Lucid's mission almost by accident. "The problem really found us. We saw these window washers hanging off the side of a building, trying to clean from great heights," he said. "It was a fairly windy day and we saw this platform just banging into the side of the building with the workers up there, white-knuckling the rails, and we just wanted to solve that problem."

Lucid provides drones and equipment to customers across 18 states, from Florida to California. Its diverse customer base includes cleaning companies, college campuses and entrepreneurs who want to start their own high cash-flow cleaning business.

https://dronelife.com/2022/09/05/hi-rise-window-washing-and-more-lucid-spraying-drones-solve-an-age-old-problem/?utm_campaign=InnovateEnergy%20Content&utm_medium=email&_hsmi=225756181&_hsenc=p2ANqtz--CidoX9PTspoGy_eSVdSvlwVKM9rRfdgbXosm_H5ORvBoSx2ohQp1d3TvoWk4a8VYmRagsa2Hhs6RI_NN3ZkqovPZ1Q&utm_content=225756181&utm_source=hs_email

Two videos that showcase the impressive flying capability of DJI Avata drone

Ishveena Singh - Sep. 12th 2022



it opens a whole new world for cinematic videography and just how incredibly thrilling an immersive flight experience can be.

At \$1,388 for the [Pro-View Combo](#), DJI Avata is not the cheapest drone on the market. But it's certainly one that can justify its price tag right from the first flight. The great thing about the Pro-View Combo is that it comes with DJI Goggles 2. These not only let you experience the video, but they also have an



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intuitive touch panel on the side from where you can control the aircraft and the gimbal camera freely with just one hand.

The first video comes from cinematographer Nathan McBride, who had a chance to fly the Avata at various locations in Indonesia. Nathan's video manages to show both the fantastic image quality of Avata's 4K/60fps camera and the incredible beauty of the Indonesian island.

The next video has been conceptualized by French videographer Stéphane Couchoud, and it features everything from swoops and dives to intricate fly-throughs that the Avata can do. But the highlight of the video is Stéphane leveraging creative editing techniques to showcase what FPV flying feels like to someone who has never experienced it before. This video is truly one-of-its-kind, and we suspect it will prompt many people to click the [Buy Now](#) button. See the videos: <https://dronedj.com/2022/09/12/dji-avata-drone-fpv-video/#more-86464>

UAV Navigation Releases its New Visual Navigation System September 12, 2022 News



UAV Navigation releases its new Visual Navigation System (VNS). This new capability is bound to cause a stir amongst manufacturers and end users of NATO Category I and II UAS. The compact and lightweight device, which is provided as an optional peripheral to the main Flight Control System, enables the safe and efficient navigation of Uncrewed Aerial Vehicles (UAVs) in GNSS-denied environments. The VNS combines “visual odometry” techniques and “pattern identification” with the rest of the sensors onboard the aircraft to ensure that the absolute position, orientation and relative movement of the aircraft over the ground is calculated with **astounding accuracy**.

The planning and execution of UAV missions in environments in which the GNSS signal is either unavailable or unreliable is becoming more and more critical. For some missions, the datalink to the Ground Control Station may be subject to interference, or indeed the operation dictates that the flight must be performed without a datalink from the outset. Under these circumstances, UAS traditionally rely on an inertial navigation system to complete the mission. However, all such inertial systems accumulate **navigational drift** due to sensor noise, propagation models and the difficulty in characterizing external forces.

The new VNS, combined with the VECTOR range of flight control systems, effectively addresses this problem by using data which is independent of the GNSS constellation, and which is more accurate than INS. The system identifies patterns in the terrain below to **assist in canceling out any accumulated error**, thereby allowing the UAS to operate for long periods of time without



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losing positional precision. https://uasweekly.com/2022/09/12/uav-navigation-releases-its-new-visual-navigation-system/?utm_source=rss&utm_medium=rss&utm_campaign=uav-navigation-releases-its-new-visual-navigation-system&utm_term=2022-09-12

Asio Technologies unveils the NavGuard NOCTA Mini: jam-proof navigation for drones September 12, 2022 News



NavGuard is a real-time optical navigation system that enables seamless and accurate autonomous GNSS-free navigation for tactical UAS platforms in areas where the GNSS signal is spoofed, jammed, or simply unavailable. Using machine vision technology, AI, advanced optics, and sensor fusion, NavGuard can be installed on different unmanned aerial platforms to enable safe and sustainable 24/7 drone missions under complete GNSS blackout.

NavGuard's new mini version, NOCTA Mini, is ideal for installation on drones and small UAS. Lighter than ever and with low power consumption, it is a fully integrated day and night optical navigation module for jam-proof and spoof-proof operations.

NOCTA Mini enables drones to operate beyond visual line of sight (BVLOS) from take-off to landing, and as it is based on machine vision, the system is **drift free**. It is a self-contained system incorporating a computing module, GIS Infrastructure, and day and night cameras. https://uasweekly.com/2022/09/12/asio-technologies-unveils-the-navguard-nocta-mini-a-mini-size-jam-proof-navigation-solution-for-drones/?utm_source=rss&utm_medium=rss&utm_campaign=asio-technologies-unveils-the-navguard-nocta-mini-a-mini-size-jam-proof-navigation-solution-for-drones&utm_term=2022-09-12

13Sep22

13,000 Miles of BVLOS Utility Line Inspections by Drone: Phoenix Air

Unmanned Miriam McNabb September 12, 2022 By Jim Magill



After about three years of operations, Cartersville, Georgia-based [Phoenix Air Unmanned](#) announced it has logged more than 13,000 miles of beyond visual line of sight (BVLOS) flights, inspecting utility transmission lines for Xcel Energy.

The company conducted its inspection flights under Xcel Energy's

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certificate of waiver authorizing BVLOS flights without visual observers along the route of flight. The FAA-issued waiver allows for use of unmanned aerial systems (UAS) surveillance spanning Xcel's 18,000 miles of transmission infrastructure. The flights took place across Xcel's service territory, which encompasses a broad swath of the U.S. Midwest and Southwest.



Phoenix's transmission line inspections are typically conducted involving two flight crews operating in a "leap-frog" manner. The first crew launches the drone from the initial take-off location, while the second crew waits at a location about 10 miles down the line. Midway through the flight the first crew hands off control to the second crew and proceeds down the line to the next flight's end point, while the second crew lands the drone and prepares it for the next leg of its inspection mission.

Two drones are listed on the waiver. With a battery life of about 30 minutes, the workhorse of the program, a Freefly Systems Alta X, has flown about 10,000 miles of the 13,000 miles of transmission line inspections. The average flight time is around nine minutes. Crews inspect about 40 miles per day, with the highest single-day inspection total by a single aircraft being **124 miles**. <https://dronelife.com/2022/09/12/13000-miles-of-bvlos-utility-line-inspections-by-drone-phoenix-air-unmanned/>

Automated Drone Landings on Moving Vessels: UAV Navigation Miriam

McNabb September 12, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Flight control specialist [UAV Navigation](#) has incorporated fully automatic flight deck UAV operations into its flight control system, enabling Unmanned Aerial Systems (UAS) to autonomously land on moving platforms.

The system's autopilot is now capable of conducting fully autonomous maritime operations across all stages of flight, from take-off to landing. The enhanced flight control system can carry out missions from vessels underway at sea or from moving platforms, all without the addition of any extra hardware or third-party devices.

Flight tests saw the system conduct a fully autonomous landing on a moving platform traveling at a speed of up to 30 km/h or 16 knots, a speed typical of the variety of vessel being simulated. UAV Navigation places a great degree of value in the process of flight testing when incorporating new features such as this one. Flight control algorithms must undergo rigorous testing when facing maneuvers of this kind. See the video:



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<https://dronelife.com/2022/09/12/automated-drone-landings-on-moving-vessels-uav-navigation-check-out-the-video/>

Open Autonomy Architecture for MQ-25 Manned-Unmanned Teaming Phoebe Grinter / 13 Sep 2022



Boeing has digitally demonstrated a new open autonomy architecture for the MQ-25 Unmanned Aerial Vehicle that will allow the US Navy to increase mission effectiveness by integrating Manned-Unmanned Teaming (MUM-T) capability at speed and scale.

The non-proprietary architecture, based on the government-owned Open Mission System specification, is the foundation for advanced MUM-T. A Boeing-led team virtually demonstrated how other aircraft can use MQ-25's architecture and task it to conduct tanking and Intelligence, Surveillance and Reconnaissance (ISR) missions – all within the mission airspace and without traditional communications with the ship-based ground control station.

Boeing's MUM-T demonstration included Northrop Grumman's E-2D Advanced Hawkeye command and control aircraft, Boeing's P-8A Poseidon maritime patrol and reconnaissance aircraft and Boeing's F/A-18 Block III Super Hornet fighter jet. The aircraft safely and efficiently tasked **four** virtual, autonomous MQ-25s to conduct ISR missions.

https://www.unmannedsystemstechnology.com/2022/09/open-autonomy-architecture-for-manned-unmanned-teaming-with-mq-25-uav/?utm_source=UST+eBrief&utm_campaign=95e5877a43-ust-ebrief_2022-sep-13&utm_medium=email&utm_term=0_6fc3c01e8d-95e5877a43-119747501&mc_cid=95e5877a43&mc_eid=0d642a9d48

Skyportz unveils Oz's first network of air taxi and UAM vertiports Bruce Crumley - Sep. 13th 2022



Australian advanced urban mobility (UAM) [infrastructure company Skyportz](#) has unveiled plans to create the **first series** of air taxi vertiports in the country.

[Skyportz says](#) it will base Australia's first string of vertiports in Caribbean Park, a rapidly growing business district in the eastern section of Melbourne, which is expected to generate healthy demand in air taxi and [other UAM services](#).



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The selection of blossoming Caribbean Park is interesting since it does not – at least at first – prioritize Melbourne’s central business district., Skyportz seems to be wagering east Melbourne still has sufficient affordable real estate to build [future air taxi](#) facilities.

Meanwhile, Skyportz believes that its strategy of linking various vertiport and air taxi transport systems will facilitate the creation of larger UAM networks serving ever larger regions – including Melbourne’s suburbs and airports serving the entire area.

“For this industry to succeed it needs to have policy makers pushing the envelope to support new ‘mini airports’ in locations people want to go,” said Clem Newton-Brown, CEO of Skyportz. “With the development of a vertiport in a business park **we are breaking the nexus between aviation and airports.**” <https://dronedj.com/2022/09/13/skyportz-uam-air-taxi/#more-86474>

Doroni’s H1eVTOL flying car seeks to rival Jetson and Air One Bruce Crumley - Sep. 13th 2022



Make room Jetson and Air One, a new personal [flying car](#) developer is stepping up with US-based [Doroni](#) working to launch an electric takeoff and landing (eVTOL) aircraft for private use by the end of 2024.

Doroni is developing its H1 eVTOL flying car with the objective of having a prototype version to unveil later this year. Following initial plans to produce a single-passenger personal flying vehicle, Miami-based Doroni responded to potential customer feedback by **pivoting toward a two-person craft**. It recently put its planned first series of [36 future planes up for pre-order](#), the majority of which have already been reserved.

In shifting to a two-seat [eVTOL](#), Doroni’s current designs rely on a centrally positioned passenger and pilot module positioned between a pair of forward and rear wings, each of which will be fitted with two encased rotors. Price for the craft is expected to range from between \$150,000 to \$190,000 – considerably higher than Jetson’s solo-passenger plane at \$92,000, but closer to Air One’s \$150,000 two-seater. <https://dronedj.com/2022/09/13/doroni-evtol-flying-car/>



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14Sep22

AeroVironment Introduces Next-Generation All-Electric VAPOR 55 MX

Helicopter September 13, 2022 Military | News



“The new VAPOR 55 MX is an easy-to-maintain system that incorporates a highly versatile modular architecture and tool-free rail system for simple, efficient integration of third-party or custom payloads, allowing users to adapt to multi-sensor, multi-mission requirements including utility inspection, aerial surveying, public safety and defense

applications,” said Trace Stevenson, AeroVironment vice president and product line general manager for small UAS.

Built on the class-leading endurance and payload weight performance of its predecessor, VAPOR 55 MX features a new low-profile design that enables the helicopter UAS to stay in the air 25 percent longer and operate in all weather.

This modular payload bay can carry up to **12 pounds** of payload with more than **70 minutes** of flight endurance while still maintaining the 55-pound gross take-off weight restricted by the Federal Aviation Administration for commercial customers. For military customers that require more take-off weight, VAPOR 55 MX is capable of a 65-pound GTOW and can carry up to 22 pounds of usable payloads with a reduced endurance trade-off.

https://uasweekly.com/2022/09/13/aerovironment-introduces-next-generation-all-electric-vapor-55-mx-helicopter/?utm_source=rss&utm_medium=rss&utm_campaign=aerovironment-introduces-next-generation-all-electric-vapor-55-mx-helicopter&utm_term=2022-09-13

UK Drone Delivery Network CAELUS Launches: Medical Distribution Miriam

McNabbon: September 13, 2022 by DRONELIFE Staff Writer Ian M. Crosby



[CAELUS](#) (Care & Equity – Healthcare Logistics UAS Scotland), a consortium led by [AGS Airports](#) in partnership with NHS Scotland to establish the UK’s premiere drone-based medical distribution network, closed **£10.1 million** in funding from the Future Flight Challenge at UK Research and Innovation last month.

CAELUS comprises 16 partners, which include the University of Strathclyde, NATS, NHS Scotland and [Skyports](#), all collaborating with the goal of providing **Scotland’s first national drone network**



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capable of delivering crucial medical supplies across the country, including to remote communities.

Following its acquisition of **£1.5 million in January 2020**, the consortium has developed drone landing stations for NHS sites throughout Scotland as well as a virtual model of the network plan, bridging hospitals, pathology laboratories, distribution centers and GP surgeries nationwide. <https://dronelife.com/2022/09/13/uk-drone-delivery-network-caelus-launches-medical-distribution/>

15Sep22

Commercial UAV Expo’s Outdoor Flight Demos Highlighted the Latest Developments Miriam McNabb September 14, 2022



[Commercial UAV Expo](#) Outdoor Flight Demos kicked off bright and early in Nevada last Tuesday. Customers, operators, press and the curious joined hosts [Sundance Media Group](#) and [KukerRanken](#) for a sold-out program of flight demos, held at the nearby Henderson Equestrian Center.



[Frontier Precision](#) was up first, with Wyatt Robbins and Sean Muldoon flying the [FreeFly AltaX](#) and showcasing YellowScan Voyager LiDAR payload. Frontier performed a mostly automated, simulated LiDAR mission. Flying at 10 m per second, Alta X has a 75 pound max payload and is Frontier’s preferred platform for LiDAR.



Autel’s John McBride demonstrated [Autel](#)’s signature fixed wing, the Dragonfish. The eVTOL can be launched and recovered in a confined space, and can be used for a variety of ISR and public safety applications due to the extended range: search and rescue, reconnaissance, and more.



Swiss-based [Wingtra](#) showed off how quickly and easily their tail-sitting electric vertical takeoff and landing (eVTOL) could be deployed, with maximum safety features. With payload flexibility and a flight time of 59 minutes with the high resolution camera demonstrated, the Wingtra One Gen 2 is designed for architecture, engineering, construction, and more mapping and surveying operations.



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<https://dronelife.com/2022/09/14/commercial-uav-expos-outdoor-flight-demos-highlighted-the-latest-developments-in-the-field-from-skydio-autel-wingtra-and-more/>

NASA struggles to regain control of its \$30 million Capstone spacecraft en route to the moon SAM TONKIN FOR MAILONLINE 14 September 2022



[NASA's](#) tiny CAPSTONE spacecraft has run into trouble on its way to the moon and is currently tumbling out of control.

The US space agency's \$30 million probe, which is around the size of a microwave oven and weighs just 55 pounds, has also been experiencing temperature issues and had problems generating power from its solar panels.

Toward the end of a major engine burn last Thursday (September 9), CAPSTONE experienced an anomaly that put the probe in a protective 'safe mode', mission team members said.

In an update issued this week, Advanced Space – the company that is managing the project for NASA – described it as a 'dynamic operational situation'.

It is not the first time CAPSTONE has hit a snag. In July, [the craft went silent shortly after breaking free from its orbit around Earth](#). However, communication was later restored.

The spacecraft was launched in June with the aim of orbiting the moon to prepare for a new lunar space station. <https://www.dailymail.co.uk/sciencetech/article-11211289/NASA-struggles-regain-control-30-million-Capstone-spacecraft.html?ito=1490>

Drones to the Methane Rescue KEVIN JOST SEPTEMBER 12, 2022



Autonomous inspection robots integrated with Percepto's AIM (Autonomous Inspection & Monitoring) software scrutinize industrial sites.

As the drive to cut greenhouse gas emissions accelerates, the focus is turning increasingly to reducing methane. According to the U.S. Environmental Protection Agency, one-third of the warming from greenhouse gases today is due to human-caused emissions of methane, a potent greenhouse gas that has trapped about 30 times as much heat as carbon dioxide in the last 100 years.



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The agency believes that sharp cuts over the next decade will have a near-term beneficial impact on the climate. The EPA intends to issue a final rule before the end of 2022. Of course, methane emissions are not just a U.S. challenge.

The Global Methane Initiative, an international public-private partnership launched in 2004, is looking to advance cost-effective, near-term methane abatement, as well as recovery and re-use. In addition, the U.S., the European Union and more than 100 countries launched the Global Methane Pledge in 2021 at the COP26 conference in Glasgow to reduce anthropogenic methane emissions at least 30% by 2030 from 2020 levels—strengthening the push to limit global warming to 1.5 degrees centigrade and avoid near-term tipping points.

<https://insideunmannedsystems.com/drones-to-the-methane-rescue/>

16Sep22

The First Professional Drone Race in Silicon Valley: Drone Racing League and

Google Cloud Miriam McNabb September 15, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Today, the [Drone Racing League](#) (DRL) and Google Cloud announced the formation of a partnership that will oversee the launch of the 2022–23 DRL Algorand World Championship Season, bringing the first professional drone race to Silicon Valley.

Presented by Google Cloud, the DRL Race in the Cloud will bring in the 2022-2023 racing season on October 11 at 7:30 p.m. PST at San Jose's PayPal Park, with [tickets currently available](#). The race will coincide with the opening night of the [Google Cloud Next](#) annual conference. Conference attendees will be able to take part in the Google Cloud Fly Cup Challenge, a competition for developers to predict race outcomes and provide tips to DRL Pilots using DRL's race data. Starting today, the competition will run throughout the fall, with developers competing for a chance at an expenses-paid trip to the season finale of the DRL 2022-23 World Championship, where they will be celebrated on stage.

<https://dronelife.com/2022/09/15/the-first-professional-drone-race-in-silicon-valley-drone-racing-league-and-google-cloud-partner/>



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Drone News of the Week, September 16: DRONELIFE Headlines, All in One

Place Miriam McNabb September 16, 2022



Matternet M2 Drone Delivery System First to Achieve FAA Type Certification

The drone industry learned of [Matternet's type certification](#) in a surprise announcement by David Boulter, FAA Associate Administrator (Acting) Aviation Safety, during the [Commercial UAV Expo Keynotes](#) earlier this week. The type certification is the first of its kind issued in the US for a non-military drone, and went to Matternet's M2 drone delivery system. Matternet has partnered with logistics company UPS to perform drone delivery on medical campuses, as well as delivery of COVID-19 vaccines. The company has been one of the pioneers of drone delivery since their inception in 2011. **See all of the headlines:** <https://dronelife.com/2022/09/16/drone-news-of-the-week-september-16-dronelife-headlines-all-in-one-place-to-read-or-listen/>