UAS and SmallSat Weekly News

Contents

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WANT $1 MILLION FOR YOUR DRONE STARTUP? THIS MIGHT BE THE TICKET June 2, 2022 Sally French

The GENIUS NY 2022 accelerator competition might be worth your time. The annual accelerator competition geared toward drone and other robotics startups is in its sixth year, and the application period is now open, through June 14, 2022. In past years, the competition has received hundreds of applications, so expect the competition for the GENIUS NY 2022 version to be fierce.

The accelerator program, which is based in Syracuse, New York, will narrow down applications to five finalists, all of whom are guaranteed to split part of the $3 million cash prize pool. One winning company will take home $1 million of it. Companies selected as finalists will also have to spend a year working in an office in Syracuse. But that's not necessarily a bad thing. Besides free office rent, companies will have access to workshops, training, mentoring and opportunities for networking and follow-on funding.

Syracuse is also a particular appealing location for many companies in the drone industry given its close proximity to New York's Griffiss International Airport, one of just seven FAA-designated UAS test sites in the United States. https://www.thedronegirl.com/2022/06/03/genius-ny-2022/

Teal to roll out four-drone, single-operator mini-swarm platform Bruce Crumley - Jun. 3rd 2022

Aerial tech group Red Cat Holdings has announced its Teal Drones unit is introducing a product allowing a single pilot to operate four UAVs simultaneously, offering swarm performance and effectiveness to defense and enterprise users alike.

Red Cat, which added Teal to its stable of aerial software and craft companies last year, claims the four UAV platform will be the first of its kind to go to market. In defense and security scenarios, the product will permit users to deploy a swarm quartet of Teal Golden Eagle drones to encircle target sites to obtain full wraparound situational views, or offer the outward-looking 360-degree perspective of areas being protected from intrusion or attack. All four feeds from the craft are displayed on the screen of a single remote controller.

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Teal's mini-swarm drone system – which is on pre-order for shipping in autumn – will be sold in a standard 4-Ship and an extended configuration. That latter 4-Ship+ offer adds two extra Golden Eagle drones and a supplementary controller to the mix, allowing easier hand-off between operators and permitting craft with fully charged batteries to replace those beginning to fade. The solution promises aerial monitoring of terrain by multiple drones flown by a single pilot, which – in automated enterprise missions like mapping and surveying – could reduce cost and time to 25% of those involving a single vehicle. https://dronedj.com/2022/06/03/teal-to-roll-out-four-drone-single-operator-mini-swarm-platform/#more-81802

Event 38 E400 Fixed Wing Mapping Drone, Made in the U.S. Miriam McNabb June 02, 2022 by DRONELIFE Staff Writer Ian M Crosby

Mapping drone manufacturer Event 38 Unmanned Systems announced today the release of its E400, a new fixed-wing mapping drone designed and manufactured entirely in the United States.

The E400 boasts an impressive flight time of ninety minutes. The drone possesses a payload capacity of three pounds and is significantly more stable at altitude and in windy conditions than a multirotor drone.

The E400's hot-swap payload bay allows changes in less than a minute without the need for specialty tools or skills. Customers can select from a range of specialty cameras and other advanced sensors such as high-resolution aerial photogrammetry, thermal and multispectral imagery, LiDAR, and live video streaming. The payload bay has an open interface, allowing customers to integrate nearly any camera or sensor with Event 38's open-source autopilot software.

The E400 also features vertical take-off and landing functionality, enabling it to take off or land anywhere at the touch of a button, without the need for specialty launch or recovery equipment. https://dronelife.com/2022/06/02/event-38-e400-fixed-wing-mapping-drone-made-in-the-u-s/

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ANRA Technologies Selected for Drone Based Sea Port Security Demonstration Project June 2, 2022 News

ANRA Technologies, a leader in integrated airspace, mission management and delivery systems for uncrewed aircraft, has been selected by The Virginia Institute for Space Flight & Autonomy and the Virginia Innovation Partnership Corporation for their innovative proposal to the Announcement of Opportunity for Port Security and Emergency Response Unmanned Systems Demonstration Project.

The team led by ANRA Technologies along with TRIAD Drones and non-profit AIRT, offer a UxS Port Mission Manager with an integrated and distributed common operating picture for this project.

ANRA solution is powered by a single software platform called SAFEport, connecting UxS for Port Security and Emergency Response missions. Using a mobile device, users connect to their UxS with SAFEport to enable manual or autonomous operations for their UxS, transmitting live video or serial data throughout the network. The locations for every participating UxS and crewed aircraft are integrated to develop a 4D COP that is distributed to authorized users.

For the project, UxS will be operated independently, collaboratively, and simultaneously using SAFEport software. This first-of-its kind capability is built on ANRA's UAS Traffic Management platform that was developed during years of research and vetting by NASA and FAA.

ANRA will provide SAFEport software and integration, TRIAD Drones will provide all operators and hardware, and AIRT will support advocacy and workshop activities. https://uasweekly.com/2022/06/02/anra-technologies-selected-for-drone-based-sea-port-security-and-emergency-response-demonstration-project/?utm_source=rss&utm_medium=rss&utm_campaign=anra-technologies-selected-for-drone-based-sea-port-security-and-emergency-response-demonstration-project&utm_term=2022-06-03

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DIU Announces Updated Blue sUAS List: 4 New Drones Added

Miriam McNabb June 03, 2022

The Defense Innovation Unit (DIU) and the Office of the Under Secretary of Defense for Acquisition & Sustainment published an updated Blue sUAS list this week.

The update adds four new models to the Blue sUAS list, representing "the first companies that have passed the vetting required for onboarding policy-compliant, commercial small unmanned aircraft systems into the Department of Defense" as part of the DIU's Blue sUAS 2.0 project.

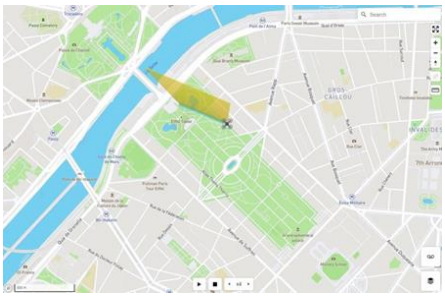
The first approved drones to be added are:

- WingtraOne, by Wingtra
- Spirit, by Ascent AeroSystems
- eBee Tac, by senseFly, an AgEagle company
- AltaX, by Freefly Systems

"Systems added to this list do not require a DoD exception to policy to procure or operate as they have undergone a cyber-security evaluation, an NDAA compliance check, and were issued the necessary administrative documentation," says the DIU announcement.
https://dronelife.com/2022/06/03/diu-announces-updated-blue-suas-list-4-new-drones-added/

Eurocontrol study reveals drones fly higher and in greater numbers than anticipated

June 6, 2022 Jenny Beechener



The Eurocontrol Innovation Hub in Brétigny reports surprising results from a drone study that tracks where unmanned aerial systems (UAS) are operating. The research centre launched the ACUTE project in August 2021 to assess UAS operations using detection devices located at the Innovation Hub. ACUTE has an operational detection range of 15km – or further when weather conditions and UAS trajectories are optimal. The project aims to understand and measure the density of actual UAS traffic in an affordable manner.

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Since starting operations, ACUTE's devices have detected more than 5,000 UAS operations, sometimes at higher altitudes than commonly expected. Within and beyond the 15km operational detection range, ACUTE regularly detects UAS traffic beyond Paris CDG or around the Chateau de Versailles – and, when conditions are optimal, even as far as downtown Paris in April or in the Bois de Vincennes. https://www.unmannedairspace.info/uncategorized/eurocontrol-study-reveals-drones-fly-higher-and-in-greater-numbers-than-anticipated/

ParaZero and Sightex partner to develop safe solutions in case of in-flight emergency June 6, 2022 Jenny Beechener

ParaZero, a provider of provider of autonomous parachute systems for commercial drones and urban air mobility vehicles, has partnered with computer vision and AI flight technologies developer Sightec to provide a hardware platform to support safe operation and integration of unmanned aerial systems (UAS).

According to a joint press release, ParaZero's onboard drone safety system, *SafeAir*, can be integrated with UAS and eVTOL platforms of any size, weight class, or airframe design. *SafeAir* continuously monitors a wide array of sensors and analyses flight data in real time to accurately detect a potential problem, autonomously activating a proprietary flight termination system and deploying a parachute in the event of an in-flight emergency. Equipped with ParaZero's patented parachute technology, *SafeAir* systems have been used to facilitate regulatory acceptance and enable autonomous beyond visual line of sight by providing a safety solution to mitigate ground risk in the event of an in-flight emergency. https://www.unmannedairspace.info/latest-news-and-information/parazero-and-sightex-partner-to-develop-safe-solutions-in-case-of-in-flight-emergency/

FAA to hold on-line public meeting on June 22 to discuss BVLOS ARC report June 2, 2022 Philip Butterworth-Hayes UAS traffic management news

The US Federal Aviation Administration (FAA) plans to host an on-line public meeting on June 22, 2022, from 5:30 p.m.-7:30 p.m. Eastern Time, to discuss the conclusions of the UAS Beyond Visual Line of Sight (BVLOS) Aviation Rulemaking Committee (ARC) final report.

According to the FAA: "This meeting will be held virtually. Members of the public who wish to view the meeting can access the livestream on the following FAA social

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media platforms on the day of the event, *https://www.facebook.com/FAA* or *https://www.youtube.com/FAAnews*. Members of the public who wish to provide written comments and/or oral comments may do so by emailing *9-FAA-UAS-BVLOS@faa.gov*. Meeting minutes and other information will be posted at: *https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/committee/browse/committeeID/837*. "

A copy of the UAS BVLOS ARC charter and final report can be downloaded at: *https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/committee/browse/committeeID/837*. https://www.unmannedairspace.info/uncategorized/faa-to-hold-on-line-public-meeting-on-june-22-to-discuss-bvlos-arc-report/

Red Cat Holdings brings "world first fully operational multi-drone system" to market June 2, 2022 Philip Butterworth-Hayes UAS traffic management news

Red Cat Holdings reported it has completed development and was now marketing a four-drone integrated swarm capability for defense, government and public safety markets; it is the first commercial enterprise to bring a fully operational multi-drone system to market, said the company.

"We have shippable product on hand and are now taking orders for delivery this fall," said Red Cat Holdings CEO Jeff Thompson. "This is a significant milestone for both our company and the entire drone industry."

Developed with its subsidiary Teal Drones, in close cooperation with strategic partner Autonodyne, LLC, the multi-vehicle package will be offered in two configurations: 4-Ship and 4-Ship+. Both configurations will allow a single pilot to simultaneously control up to four of Teal's Golden Eagle units, which is the first drone mass produced entirely in the USA under strict guidelines from the US Department of Defense, said the company. https://www.unmannedairspace.info/latest-news-and-information/red-cat-holdings-brings-world-first-fully-operational-multi-drone-system-to-market/

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SKYMAGIC steals the show with Queen's Jubilee drone performance Bruce Crumley - Jun. 5th 2022

Despite earlier concerts by pop stars, appearances of celebrities, and speeches by royalty, it was UK drone performance specialist SKYMAGIC that stole the show Saturday night with its aerial salute to Queen Elizabeth II during the Platinum Jubilee celebration of her reign.

SKYMAGIC's drone show feting the monarch's 70 years on the throne became the topic of immediate and widespread raves on social media, with some commentators hailing it as the best aerial spectacle they'd ever witnessed. The most popular formation of the night was, hands down, a replica of one of the Queen's beloved corgis – this one a happy-looking hound watching an illuminated bone as it floated by. The official account of Prince William and his wife tweeted a video of the sky dog, with the comment, "How amazing was this!"

The smash performance helped cement the London- and Singapore-based SKYMAGIC's reputation as being among, if not *the* top drone show performance companies in the world. https://dronedj.com/2022/06/05/skymagic-steals-the-show-with-queens-jubilee-drone-performance/#more-81898

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LATAM Cuts Aircraft Inspections To 40 Minutes with Drones DANIEL MARTÍNEZ GARBUNO PUBLISHED MAY 04, 2022

LATAM Airlines Group is employing drones to inspect aircraft fuselages at its Maintenance, Repair, and Overhaul facilities in São Carlos, Brazil. By using this new technology, the South American airline is making the maintenance process faster and better.

One of LATAM's Brazil rivals, Azul, has saved about $40 million in the last two years by doing maintenance and repairs in-house. You can read Simple Flying's tour of Azul's hangar here.

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Earlier this week, Jerome Cadier, CEO of LATAM Airlines Brazil, released a video showing how the airline does maintenance checkups by using drones. This video shows a small drone flying around an Airbus A319 with a special livery promoting the Rock in Rio 2022 music festival. The drone can be seen taking photographs of the fuselage. https://simpleflying.com/latam-drone-aircraft-inspections/

Air Force sees 2 business models for integrating robotic wingmen into combat formations Jon Harper JUN 3, 2022 | FEDSCOOP

The Air Force envisions having robotic wingmen that it can "mix and match" with manned aircraft for combat operations. But to enable that interoperability, the service needs to embrace new hardware and software business models that foster "synchrony and harmonization" among different components of the acquisition community, a senior official said.

The Air Force plans to create a "family of systems" for its Next-Generation Air Dominance (NGAD) program, which aims to develop a stealthy sixth-generation fighter as well as drones — also referred to as autonomous "collaborative combat aircraft" (CCA) — and various mission systems that could accompany them into battle. The service has outlined a similar vision for the B-21 Raider, its next-gen stealth bomber.

The NGAD platform recently entered the critical engineering and manufacturing development (EMD) phase, and the B-21 could achieve first flight as early as next year. https://www.fedscoop.com/air-force-sees-2-business-models-for-integrating-robotic-wingmen-into-combat-formations/

Drones deployed on aircraft carrier Shandong; 'more advanced tech to come soon' Liu Xuanzun Jun 05, 2022

Drones are seen on the flight deck of the aircraft carrier Shandong of the Chinese People's Liberation Army (PLA) Navy in a video released by the PLA South Sea Fleet on May 31, 2022.

The deployment of lightweight drones on the Chinese People's Liberation Army (PLA) Navy's aircraft carrier *Shandong* sparked a wave of

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speculation by overseas media, which hyped that China has surpassed the US in deploying drones on aircraft carriers. Chinese analysts said such a combination could enhance the ship's logistics support capability and situational awareness, and it is nothing to be surprised about, as larger, more sophisticated drones could be onboard China's aircraft carriers soon.

At least seven drones of two different types could be identified in the picture, the source of which was unknown, but a watermark of China Central Television indicated its authenticity, the Voice of America said. https://www.globaltimes.cn/page/202206/1267328.shtml

AT&T's Flying COW® Drones: The Mobile 5G Hotspot Miriam McNabb June 06, 2022 Ian M. Crosby

This past April, the AT&T drone team took to a field in rural Missouri to test its new Flying COW® (Cell on Wings), marking the first time AT&T has transmitted its 5G network from a drone.

"We had intermittent, weak LTE signal at the flight location before we launched the 5G Flying COW," said Ethan Hunt, UAS Principal Program Manager at AT&T. "We flew the drone up to about 300 feet, turned on the signal and it began transmitting strong 5G coverage to approximately 10 square miles."

This would allow customers with 5G compatible devices in the area to go from no service to super-fast wireless connections in a matter of seconds with potential use cases such as assisting first responders in search and rescue missions.

"We are currently working through many exciting technical challenges to expand the capabilities of our Flying COWs®," said Pregler. "We're working to autonomously fly without tethers for months without landing, using solar power to provide secure, reliable, and fast 5G connectivity to large numbers of users over wide geographic areas. This solution may one day help bring broadband connectivity to rural and other underserved communities across the U.S. and elsewhere."

The AT&T drone team is also testing Beyond Visual Line of Sight (BVLOS) operations, enabling the pilot to operate a drone from a completely different location. The current flight control system allows tethered Flying COWs® to be separated by thousands of miles, essentially operating BVLOS already. However, the team is currently working on launching untethered Flying COWs® to provide 5G connectivity at BVLOS locations.
https://dronelife.com/2022/06/06/atts-flying-cow-drones-the-mobile-5g-hotspot/

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Swoop Aero turns down $100M takeover bid to raise $16M in Series B funding

Ishveena Singh - Jun. 7th 2022

After over two years of continuous medical drone delivery operations across Africa, Australia's Swoop Aero has completed a $16 million Series B funding round. But what's even more impressive is that the logistics startup had the confidence to reject a $100 million takeover offer from a US-based defense company, halfway through the round.

The Series B round was led by Australian deep tech venture capital fund Main Sequence and joined by impact-focused fund Giant Leap as well as In-Q-Tel, a nonprofit strategic investor to the US national security community. And for the third time, Artesian Venture Capital and Folklore have reinvested in Swoop Aero.

"We're thrilled to have the support of such exceptional VC funds as we expand our integrated logistics networks across the globe and look to scale these networks to stack and deliver services that will transform how the world moves," Eric Peck, CEO of Swoop Aero, said in a statement.

But during an interview with an Australian daily, Peck explained that he was compelled to reject the takeover bid since he "didn't build the technology just to do defense sales." Peck told *The Australian Financial Review*:

Peck says the latest funding will enable the company to enter into new markets, scale its integrated logistics networks, and expand Australian manufacturing capabilities while progressing its impact-driven operations across Africa. A chunk of money will also go into scaling up the manufacturing of Swoop's delivery drone, Kite, throughout 2022 and 2023.
https://dronedj.com/2022/06/07/swoop-aero-series-b-funding/#more-81983

Ukraine teen and his drone doom Russian convoy nearing Kyiv Bruce Crumley - Jun. 7th 2022

A 15-year-old amateur pilot in Ukraine has provided an excellent example of how consumer drones have become one of the worst – and deadliest – nightmares for Russian armed forces seeking to conquer the country, according to a report detailing the teen's role in the

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destruction of a convoy advancing on Kyiv.

The account of how the adolescent flew his drone to pinpoint the precise location of the Russian column and supplied the information to Ukraine artillery units was reported by Canadian publication *Global News*. It describes how 15-year-old UAV enthusiast Andrii Pokrasa was solicited by forces defending the Kyiv area from a Russian offensive in late February. He stealthily flew the craft until he located the target, recorded its GPS data, and handed those to Ukraine fighters standing by with missiles.

"This kid sent GPS coordinates and Russians, after this, became dead," said Taras Troiak, a drone sector professional who has worked to organize private pilots and procure off-the-shelf drones to assist Ukraine forces. "If we didn't have such operators and drones who can help the Ukrainian army, I think Kyiv already could be occupied by Russian forces." https://dronedj.com/2022/06/07/ukraine-teen-and-his-drone-doom-russian-convoy-nearing-kyiv/#more-81940

UK's MoD shapes its UAV future with Skydio drones Bruce Crumley - Jun. 7th 2022

Planners in the UK's Ministry of Defence (MoD) are drawing consequences from the enormous effects of small commercial drones deployed in Ukraine's defense against Russian invaders, and are turning to consumer tech specialists like Skydio to muscle up their own UAV assets.

Parallel to its procurement of DJI Matrice 300 RTKs, the MoD has also ordered over $3.6 million in Skydio X2D drones designed for military, security, and first responder operation. Based on a contract signed last month, the company will deliver those in partnership with Marlborough Communications Limited, providing the same kind of technology in small, portable UAVs that have proven so effective in the hands of private and military operators in Ukraine.

The MoD is looking to put the multiplicity of applications UAVs provide at sensible market prices, using craft that – if damaged or destroyed – are easily replaced.

The autonomous Skydio X2D drone boasts artificial intelligence and adaptive 3D Scan capabilities that will allow MoD pilots to effect reconnaissance, security patrols, and incident response missions day or night. The UAV features 360° obstacle avoidance, six 4K

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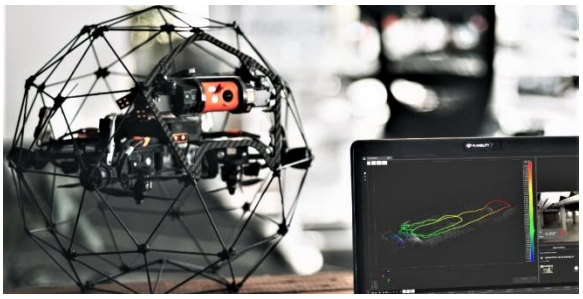
cameras, learning algorithms, and AI enabling them to understand ongoing situations and even prepare for future scenarios.

In addition to being larger in terms of scope than the MoD's earlier $165,000 purchase of DJI drones, its deal with Skydio is part of a broader modernization and rethink of its military assets. https://dronedj.com/2022/06/07/uks-mod-shapes-its-uav-future-with-skydio-drones/#more-81992

Paris metro looks to modernize with drone inspections Bruce Crumley - Jun. 7th 2022



Though the Paris Métro may be over 120 years old, the famous underground subway system strives to stay young through modernization, and is now preparing to roll out new tech innovations that include robots and drones.

Operator Régie autonome des transports parisiens (RATP) has about 180 projects currently underway to test or deploy new tech applications to ease operation and increase efficiency and safety. Among those are use of Flyability Elios 2 drones in the Paris Métro to perform inspections of elevated assets, or access and visualize equipment difficult for humans or other machines to reach. A similar concept is trialing Boston Dynamics' robotic dog to remotely check on nearly 230 km of rails and 308 stations.

The hope is that use of the non-polluting, battery-powered drones will take some of the wear and tear – and risk – out of ongoing, primarily manual inspection of the Paris Métro's vast infrastructure. In the case of UAVs, caged vehicles can take human eyes closer to subway structures under scrutiny and collect or map data once there to determine whether and what renovation or repair work may be necessary.

Officials say drone inspection trials are already underway at 170 sites in the Paris Métro and suburban RER commuter system and have cut the time job usually involved from nine or 10 hours to about 30 minutes. https://dronedj.com/2022/06/07/paris-metro-looks-to-modernize-with-drone-inspections/#more-82030

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Speeder AUV by Mayman Aerospace – Like a Motorbike with Jet Engines Miriam McNabb June 07, 2022 by DRONELIFE Staff Writer Ian M Crosby

This year's annual Draper Venture Network CEO Summit saw the reveal of Mayman Aerospace's flight-ready prototype of its Speeder Air Utility Vehicle (AUV).

The P2 Speeder vertical takeoff and landing vehicle garnered a great deal of interest from Summit attendees, including host Tim Draper, with many taking a seat on the prototype for a glimpse into the future of flight.

Roughly the size of a motorbike, the P2 Speeder prototype features eight jet engines. The final version of the aircraft is being designed to lift up to 1000 lbs and reach a range of 400 miles, as well as hit speeds of more than 500 mph while in unpiloted cargo mode. The P2 Speeder is Mayman Aerospace's third full scale prototype and is set to start carrying out initial remote controlled test flights in Q3 2022, with piloted tests expected to come near the end of Q4. Mayman Aerospace is working closely with the FAA towards flight certification.

Following the certification process, Speeder aircraft will give riders the ability to take flight with the press of a button. The Speeder AUV is optimized for flight efficiency and ultra-safe system redundancy, featuring a proprietary onboard computer system that will rebalance engine thrust in response to an engine anomaly.
https://dronelife.com/2022/06/07/speeder-auv-by-mayman-aerospace-like-a-motorbike-with-jet-engines-more-power-than-an-electric-drone/

China Unveils 'Mothership' to Launch Drone Swarms JOE SABALLA MAY 31, 2022

China has launched a gigantic "mothership" to launch swarms of unmanned aerial vehicles for maritime reconnaissance and surveillance operations.

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Chinese air power on display at Airshow China 2021 in Zhuhai, Guangdong

Named the Zhu Hai Yun, the vessel is reportedly equipped with an advanced artificial intelligence operating system for semi-autonomous operation.

According to manufacturer Huangpu Wenchong Shipping Company, the megaship can undertake "three-dimensional dynamic observation" of targets using unmanned aircraft, boats, and submersibles.

A *South China Morning Post* report stated that the vessel's features and capabilities also make it a "powerful ocean research tool."

"The intelligent, unmanned ship … will bring revolutionary changes for ocean observation," Southern Marine Science and Engineering Guangdong Laboratory director **Chen Dake** said.

In addition to launching drone swarms, the Zhu Hai Yun can be employed as a hub for other unmanned weapons and surveillance systems.
https://www.thedefensepost.com/2022/05/31/china-mothership-drone-swarms/

Dubai utility develops continuous drone charging system

Air Travel 26 May 2022 SmartCitiesWorld news team

Dubai Electricity and Water Authority's (DEWA)'s research and development center has registered a new patent for an unmanned aerial vehicle's (UAV) charging system that enables continuous charging for UAVs.

It is designed to provide longer flying hours with a large storage capacity. This is in addition to improving the efficiency of charging and facilitating the charging process.

The system uses a group of UAVs to charge the main one through electromagnetic induction. It can be used for government, military, commercial, and personal operations. The patent supports DEWA's efforts to increase its UAV operations. These include automatic regular checking of photovoltaic modules at the Mohammed bin Rashid Al Maktoum Solar Park, the largest single-site solar park in the world using the Independent Power Producer (IPP) model.

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DEWA uses UAVs to ensure solar photovoltaic panels are performing well. The new system enables longer working hours for UAVs, saves time and effort, increases productivity, and improves the accuracy of maintenance operations. https://www.smartcitiesworld.net/air-travel/air-travel/dubai-utility-develops-continuous-drone-charging-system-7736

Volocopter's 4-Seater Aircraft Takes First Flight June 7, 2022 News

Today at the UP.Summit, an annual gathering of leaders in transportation innovation hosted by investment firm UP.Partners, urban air mobility (UAM) pioneer Volocopter announced that it has achieved another milestone to bring UAM to life: its fixed-winged passenger aircraft, the VoloConnect, completed its first flight in May 2022. This accomplishment makes Volocopter the only eVTOL (electric vertical takeoff and landing aircraft) developer worldwide to have an entire fleet of distinct aircraft configurations undergoing flight tests.

Volocopter's third product solution, the VoloConnect, offers further and faster journeys than any other Volocopter aircraft to date, with a range of over 60 mi and flight speeds above 155 mph. The passenger plane's extended range and higher payload will bring business travelers and commuters beyond the city center on routes like Burbank to Huntington Beach in Los Angeles, CA. With the VoloCity and VoloConnect air taxi designs fulfilling demands for metropolitan flights and suburban connections in densely populated regions respectively, The VoloConnect is targeting a 2026 entry into service, while the VoloCity is targeting commercial launch in 2024. https://uasweekly.com/2022/06/07/volocopters-4-seater-aircraft-takes-first-flight/?utm_source=rss&utm_medium=rss&utm_campaign=volocopters-4-seater-aircraft-takes-first-flight&utm_term=2022-06-08

Walmart-backed DroneUp seeks to scale drone deliveries with FlightOps OS

Ishveena Singh - Jun. 8th 2022

Walmart-backed drone delivery operator DroneUp is joining forces with Israel-based FlightOps to scale up its operations and fly multiple drones in shared airspace from anywhere on the globe.

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FlightOps calls its drone operating system the "Android" of the air mobility market. The solution works by installing robotic software onboard any type of commercial drone. This OS allows the drone to make autonomous decisions, negating the need for manual planning, and minimizes the dependency on communications with human operators.

FlightOps uses 4G and 5G networks to break the range barriers and enable BVLOS flights. But even in an extreme no-comms situation, the platform can leverage its smart algorithms to optimize flight routes and avoid air and ground obstacles, no-fly zones, and other airspace restrictions. It can also deconflict multiple flight missions that are being operated in shared airspace.

At the same time, the drone OS keeps a tab on the energy consumption as well as the return home route, ensuring that a drone delivery mission is completed safely with no risk of running out of battery juice. https://dronedj.com/2022/06/08/droneup-flightops-walmart-drone-delivery/#more-82074

Zipline unveils onboard acoustic detect and avoid drone solution Bruce Crumley - Jun. 8th 2022

Pioneering drone delivery company Zipline is again striving to break new ground in – and for – autonomous UAV operation by unveiling its new, acoustic-based detect and avoid (DAA) platform allowing craft to identify and evade aerial risks from up to two miles away. The company says the innovation will allow automated UAVs to ensure collision-free flights over long distances and safe operation even in uncontrolled airspaces.

The platform incorporates small, lightweight acoustic microphones and onboard processors. The ensemble listens for and will identify distinctive sounds of nearing drones or aircraft within a 2,000-meter range – both in front, behind, and around the UAV. That 360-degree protection operates in clear skies, clouds, and different kinds of weather, providing full and reliable situational awareness the company says radars and cameras cannot.

And because different elements are lightweight, Zipline says its DAA drone solution is both easily scalable and provides onboard security replacing larger ground-based alternatives. https://dronedj.com/2022/06/08/zipline-unveils-onboard-acoustic-detect-and-avoid-drone-solution/#more-82037

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9June22

New renderings show hypersonic plane that can fly from Los Angeles to Tokyo in 1 hour

Andrea Leinfelder June 9, 2022

Venus Aerospace unveiled Stargazer, the company's first conceptual vehicle design, on Tuesday. The spaceplane is being designed in Houston to travel from Los Angeles to Tokyo in one hour.

"Stargazer" is the Houston company's first conceptual vehicle design. The spaceplane would travel nine times faster than the speed of sound and at an altitude of 170,000 feet. That's high enough to see the blackness of space, though the plane never leaves the Earth's atmosphere. It's designed to hold 12 passengers.

Venus Aerospace says its aircraft would be more like the space shuttle. The shuttle re-entered Earth's atmosphere and then glided to the runway. It would use rocket engines to approach the threshold of space and then glide.

Venus Aerospace was founded in 2020 and has since raised more than $33 million to build a hypersonic drone and the Stargazer spaceplane.

In the past year, it has designed and built its technology demonstration engine, conducted experiments at hypersonic wind tunnels and propulsion test facilities throughout the U.S., and started additional testing in Houston. It plans to start subsonic and supersonic flight testing with a drone in the coming year. https://www.houstonchronicle.com/news/houston-texas/space/article/New-renderings-show-Houston-company-s-17227537.php

Royal Mail Expands its Drone Fleet and Drone Mail Delivery Routes

JUNE 2, 2022
João Antunes

Earlier in May 2022, Royal Mail announced a partnership with Windracers Group, a manufacturer of twin-engine fixed-wing UAVs, to establish more than 50 new postal drone routes over the next three years.

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Subject to Civil Aviation Authority approval, Royal Mail's new plan will facilitate faster and more convenient services for customers in remote communities, such as island communities across the Isles of Scilly, Shetland Islands, Orkney Islands, and the Hebrides. Furthermore, drones can help further reduce Royal Mail's carbon emissions and improve the reliability of island mail services. These currently use ferries, small manned aircraft, and land-based delivery, which are weather-dependent and constrained by pilot availability and maintenance schedules.

In the next three years, apart from the 50 new postal drone routes, Royal Mail wants to increase its game by expanding its drone fleet to 200 drones. In the long term, if all goes according to plan, the company expects to expand it even further to 500 drones servicing all corners of the UK and beyond. https://www.commercialuavnews.com/drone-delivery/royal-mail-expands-its-drone-fleet-and-drone-mail-delivery-routes?mkt_tok=NzU2LUZXSi0wNjEAAAGE6JmF-EtON0c5J8aTp1C8H3ETSILVAL1t8iGKl2k603bBWO9bCgf99O-axT4DPlciMI4D9mMzWpVjVdA1ie9w7GRcEGegS1YO5YsiF9oQcXEN

The Impact of Drones in Canada for the Enterprise João Antunes JUNE 8, 2022

UAVs represent an opportunity for Canada's commercial sector to increase efficiency and competitiveness. From non-profit organizations and academic institutions to government entities and a variety of drone companies, Canada's drone ecosystem consists of various key players in the drone industry.

Since 2015, Transport Canada has been working towards the integration of safe and secure drone operations into Canadian skies as part of a modern national civil aviation system. With the Canadian commercial market expected to grow by more than 17.4% by 2027, Transport Canada is focused on connecting communities and improving the country's supply chain networks to help move goods so they can reach consumers.

The department's top priorities are developing regulations for lower-risk BVLOS operations in rural and remote areas, understanding the security threats and risks posed by drones at

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airports and other critical infrastructure, supporting economic growth, and increasing public trust. In a long-term effort, the establishment of a drone traffic management system is also another of the key priorities. https://www.commercialuavnews.com/international/the-impact-of-drones-in-canada-for-the-enterprise?mkt_tok=NzU2LUZXSi0wNjEAAAGE6JmF-Kme_2fLE4brCkGa-TxL6cf1uPj2SoXWQzjM-ACm_ZRvuz94Pe9bIEvkE_20aLee03F5Wpzdn2Ux7dxAalUmI4ZlpQMzqWk63Nxw424g

10June22

Satellites gone up to the skies MARK SCOTT 06/09/2022 With *help from Derek Robertson and Eric Geller*

A Starlink antenna casts a shadow on Ukrainian frontline positions near the town of Izyum in the southern Kharkiv region of Ukraine in May.

As Christopher Miller, Bryan Bender and I outlined in our story about how SpaceX's Starlink satellites have become a lifeline for both Ukraine's military and its civilians, the technology has done something that few thought possible. It's thwarted Russia's efforts to cut off its Western neighbor from the outside world.

The reliable internet access — good enough for Ukrainian soldiers to play Call of Duty via their smartphones — has helped beam images of the war, mostly via social media, directly onto people's smartphones worldwide.

In April, Amazon announced plans to launch more than 3,000 of these mini satellites into space. OneWeb, a British competitor that's partly owned by the U.K. government after going bankrupt, has restarted efforts to build its own network. Startups across the Western United States are also getting in on the action. https://www.politico.com/newsletters/digital-future-daily/2022/06/09/satellites-gone-up-to-the-skies-00038564

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