UAS and SmallSat Weekly News

Contents

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Canada Launches Advanced Air Mobility Consortium Kate O'Connor October 29, 2020

Looking to "accelerate the implementation of electric and hydrogen powered, vertical takeoff flight in Canada," the Canadian Advanced Air Mobility Consortium announced its official launch on Wednesday. The Vancouver-based organization says it is aiming to streamline Advanced Air Mobility research, development and commercial operations by meeting objectives such as creating an innovation hub and expanding connections with regulators, manufacturers, aviation operators and other stakeholders.

"We've established an outstanding group of strategic members to support the design, integration, and implementation of Advanced Air Mobility in Canada," said CAAM executive director JR Hammond.

Benefits offered by AAM aircraft include greater maneuverability, less need for ground infrastructure, less aircraft noise, reduced fossil fuel consumption, lower costs, shorter travel times and improved safety. Among CAAM's more than 20 member organizations are TransLink, Helijet International, the British Columbia Institute of Technology, the University of British Columbia, Bell Textron and Iskwew Air. https://www.avweb.com/recent-updates/evtols-urban-mobility/canada-launches-advanced-air-mobility-consortium/?MailingID=482

FAA's Unmanned Aircraft System Remote ID Service Could be Ready This Year

Kelsey Reichmann October 29, 2020

The Federal Aviation Administration might be able to initiate remote identification service for unmanned aircraft systems in December, Steve Dickson, FAA administrator, said Wednesday during the virtual UAS Summit & Expo. The remote ID systemwill allow identification of UAS in the airspace in real-time via a centralized system.

Under the remote ID system, commercial drone operators will be required to transmit their location, their drone's location, velocity and identifying data to a centralized system, which a variety of remote ID unmanned aircraft system service providers share and retrieve information from in near-real-time.

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Dickson said the rule is currently under review by the Office of Management and Budget which is the last stage before it can be released. He acknowledged that a release date can be somewhat unpredictable, but the FAA sees the ruling being released sooner rather than later. https://www.aviationtoday.com/2020/10/29/faas-unmanned-aircraft-system-remote-id-service-ready-year/

Drone Delivery Canada COVID Prevention Project Has Taken Flight Jason Reagan October 29, 2020

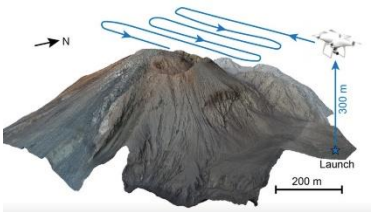
In June, Drone Delivery Canada announced a collaboration with GlobalMedic and Air Canada to deliver COVID-treatment cargo to Christian Island, a remote territory governed by the Beausoleil First Nation Community in Ontario.

The next month, the company launched a partnership with the Georgina Island First Nation to provide delivery services to the Ontario community. A two-way delivery flight route to the First Nation's mainland community deploys a Sparrow drone and DroneSpot takeoff-and-landing zones.

The project – with an assist from Air Canada and the Pontiac Group – is intended to limit person-to-person contact on the island communities' ferry services by transporting COVID-19 related cargo such as personal protection equipment, hygiene kits, test kits and test swabs by drone.

"[The Beausoleil First Nation project] has been flying for a few weeks, and the [Georgina Island First Nation] project started flying recently," DDC CEO Michael Zahra said. "We are pleased to see both projects operational and look forward to seeing the meaningful benefits our solution can bring to these Indigenous communities. Difficult to access locations, time critical deliveries and limiting person-to-person contact are all ideal use cases for drone logistics." https://dronelife.com/2020/10/29/drone-delivery-canada-first-nations/

Monitoring active volcanoes with the help of drones APPLICATION BUSINESS DJI HEADLINE NEWS MINING AND AGGREGATES ALEX DOUGLAS JUNE 5, 2020



Edgar Zorn is a PhD student in Potsdam, Germany, and specializes in measuring deformation on active volcanoes using photogrammetric techniques. He and other scientists recently conducted a study using drones to make aerial images of a

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volcano in Guatemala which allowed for the creation of highly detailed 3D models of the volcano and enabled the scientists to gain ground movement data that would otherwise be difficult or dangerous to obtain. Zorn spoke with DJI to explain more about the work:

What type of technology would you like to be implemented on a drone that would help you during your work?

Many technologies such as RTK-GPS have already been implemented into these types of drones, but they could be more affordable. When we fly around erupting volcanoes, there is always a rather high risk that the drone could be destroyed, so individual drone values should be kept at a reasonable level. Otherwise, for increased practicality in volcano monitoring, the main issues are still in the short flight times, reach and a restrictive maximum flying height. We face challenging conditions on top of the mountains, mainly unpredictable strong winds which further shortens flight times. More efficient and robust batteries would allow us to make further flights and improve our monitoring capabilities.
https://www.commercialdroneprofessional.com/case-study-monitoring-active-volcanoes-with-the-help-of-drones/

Construction drone industry to be worth $11.96 billion by 2027 Josh Spires Oct. 30th 2020

Last year, the construction drone industry brought in around $4.8 billion globally thanks to an ever-growing reliance on drone technology on construction sites. The jump to $11.96 billion in 2027 equates to a compound annual growth rate of around 15%.

Land surveying continues to be the biggest use for drones on construction sites, providing accurate results in a fraction of the time ground-based methods. Drones are also used for inspection purposes to ensure areas are safe for workers and check to see if the workers are doing a good job.

A drone can provide the construction company with an accurate 3D model of the construction site on a day-to-day basis to show progress. The aerial view a drone offers can also pick up issues that you might not see from the ground, and it makes roof inspections a much easier task. https://dronedj.com/2020/10/30/construction-drone-industry-to-be-worth-11-96-billion-by-2027/

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2198 drones take to the sky in record-breaking drone show Josh Spires Oct. 30th 2020

The drones flew over Saint Petersburg in Russia for around 10 minutes and saw the drones span out over 600 meters. Ublox assisted the company behind the drone swarm, Geoscan, controlling all the drones simultaneously and ensuring they moved correctly. Geoscan's solute drones flew just centimeters from one another thanks to UBlox's NEO-M8P GPS module.

Geoscan has undertaken over 35 drone shows throughout Russia, Asia, Europe, and the Middle East. Geoscan can create a drone show in a month, from project discussion to getting them in the air. The drone show can go for a maximum of 10 minutes, likely due to the batteries, and can be seen from up to 3 kilometers away.

Taking a look at the video, we see how the drones are transported in dense columns, making shipping much easier. The drones then slowly ascend in groups to display 2020 along with some Russian text. The drones form into a man with two planes flying beside him before changing into a Russian emblem. The show finishes off with a bird flapping its wings.
https://dronedj.com/2020/10/30/2198-drones-take-to-the-sky-in-record-breaking-drone-show/

Drone Delivery Canada Announces Update on Successful Condor Testing October 29, 2020 News

On September 1st, 2020, the Company had announced successful testing of numerous critical aspects of the Condor, including: triple-redundant communications system (satellite, cellular, 900MHz RF); triple-redundant navigational guidance system; triple-redundant autopilot system; monitoring of unmanned flights remotely from DDC's Operations Control Centre in Vaughan, Ontario; general flight stability and performance; and fuel consumption characteristics.

The Company is pleased to announce that, recently in October, it has successfully tested many of the above aspects again, in addition to numerous other attributes of the Condor: multiple unique flying patterns, multiple velocity vectors and altitude profiles, sound pressure levels,

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engine tuning characteristics, maintenance procedures, logging of flight data, and extended endurance testing in varying environmental conditions.

The Condor is currently the Company's largest drone with an expected range of 124mi and a payload capacity of 396lb and is fully integrated with the Company's patented FLYTE software system. https://uasweekly.com/2020/10/29/drone-delivery-canada-announces-update-on-successful-condor-testing-2/?utm_source=rss&utm_medium=rss&utm_campaign=drone-delivery-canada-announces-update-on-successful-condor-testing-2&utm_term=2020-10-30

Remotely Piloted Aircraft System enhances surveillance of the French Mediterranean Sea 2020-10-30

Aiming to test the use of Remotely Piloted Aircraft Systems in enhancing the maritime awareness picture in the French Mediterranean Sea, Secrétariat Général de la Mer requested the European Maritime Safety Agency to set-up a multipurpose surveillance operation, having the Navy and customs as the leaders of the operation.

The RPAS service will consist of maritime monitoring and surveillance in support of coast-guard functions and maritime environmental protection, namely oil spill detection and response.

The contractor operating the RPAS is the consortium REACT, and the aircraft to be used is the AR-5 unmanned fixed wing aircraft. It has a payload comprising a maritime radar, electro-optical and infra-red cameras, AIS receiver and EPIRB antenna. http://www.emsa.europa.eu/emsa-homepage/2-news-a-press-centre/news/4046-emsa-s-rpas-enhances-maritime-surveillance-of-the-french-mediterranean-sea.html

Brookhaven adopts first police drone response program in Georgia DEKALB COUNTY

Oct 28, 2020 Zachary Hansen, The Atlanta Journal-Constitution

Brookhaven will become the first city in the southeast to adopt a first responder program that uses drones to respond to 911 calls, emergencies and to conduct investigations.

On Tuesday night, the city approved funding for the Brookhaven Police Department's unmanned aerial system unit which will consist of four drones. Police will be able to deploy them to witness crimes in progress, document crime scenes or provide a bird's eye view for officers on the ground. It will give its officers more flexibility, availability and information, while limiting in-person contact amid the coronavirus pandemic.

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"It's literally a game changer," Brookhaven police Lt. Abrem Ayana said at a city meeting Tuesday night. Ayana, who pitched the project to the City Council, said Brookhaven will become the first city outside of California to adopt this program — the first was the Chula Vista Police Department in 2018. https://www.ajc.com/news/if-you-call-911-in-brookhaven-a-drone-might-respond-soon/DAA5KFEAHVCZRNVQJTPNEWVQIY/

1Nov20

New study shows public unaware of drone usage by first responders

IsraelDefense 26/10/2020

The general public is unaware of the use of drones by first responders in emergency situations, according to research conducted by the international ResponDrone Project, which is developing a situation awareness system for emergency situations. The drones provide critical information and communication services to first responders.

The EU-funded project held focus group discussions, which revealed that most participants associated drones with amateur photography and videography, children's toys and military operations, or knew very little about drones. Comments on the acceptance of the operation of drones were split between negative feedback, mainly due to privacy and noise concerns, and the understanding of the potential improvements it could offer to emergency responders, to a lesser extent. All participants indicated that they would be willing to tolerate some disturbance if it were for the purpose of saving lives or mitigating disasters.

The 12 focus group discussions took place in six countries (France, Netherlands, Greece, Bulgaria, Latvia and Armenia). The countries were carefully chosen to represent different cultural settings within Europe and beyond. https://www.israeldefense.co.il/en/node/46106

The main aim of the focus groups was to develop recommendations on how to communicate and position the societal benefits of using drones for emergency response in order to increase public acceptance of drone technology.

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U.S. DOT Announces BEYOND Program Will Continue Where UAS IPP Ends Miriam McNabb October 30, 2020

The nine state, local and tribal governments that participated in the program have signed new agreements with the Federal Aviation Administration to continue to tackle remaining UAS integration challenges.

"The three years of information gathered under the drone Integration Pilot Program will be applied to a new initiative called BEYOND, which will further advance the safe integration of drones into our national space," said U.S. Transportation Secretary Elaine L. Chao.

"At the onset of the public health emergency, many of the IPP participants were able to pivot from their original missions to support the COVID-19 response and recovery, demonstrating the increasing value of drone operations in this new environment," said FAA Administrator Steve Dickson.

The Beyond program lists flight beyond visual line of sight as one of the primary objectives of this next phase. https://dronelife.com/2020/10/30/beyond-program-will-continue-where-uas-ipp-ends/

2Nov20

Drone Startups Aim to Carve Out Role in Delivery of Potential Covid-19 Vaccine

Marc Vartabedian Nov. 1, 2020

A Volansi Inc. drone. The San Francisco-based startup partnered with pharmaceutical giant Merck in October to fly medicines and vaccines from a Merck manufacturing facility in North Carolina to a nearby health clinic.

A handful of drone-delivery startups want to help transport Covid-19 vaccines from distribution facilities to health centers, vying for a logistical role in what is likely to be a sprawling and complex undertaking. Several of these businesses recently have entered into medical delivery partnerships with drug companies and retailers—including Merck & Co. and Walmart Inc. —that could help position them to take part in the high-profile effort to distribute Covid-19 vaccines.

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To be sure, using drones to transport Covid-19 vaccines likely would represent a sliver of the overall effort. They would primarily be for hard-to-access regions and fly along fixed routes to move doses in bulk. Storage temperature requirements would have to be factored in. In some cases, distributing Covid-19 vaccines would be an extension of existing aerial medical deliveries these companies already are performing. https://www.wsj.com/articles/drone-startups-aim-to-carve-out-role-in-delivery-of-potential-covid-19-vaccine-11604239201

Northrop Books $158M Contract to Support South Korea's RQ-4 UAS Operations

Brenda Marie Rivers November 2, 2020 Contract Awards, News

The U.S. Air Force has awarded Northrop Grumman a $158.4M contract to help sustain RQ-4 Global Hawk unmanned aircraft systems for the South Korean government.

Northrop will provide contractor logistics services and RQ-4 spares as part of the sole-sourced award, the Department of Defense said Friday.

The Air Force Life Cycle Management Center will obligate $33.8M in foreign military sales funds to the Republic of Korea at the time of award. Contract work will take place in South Korea and Sierra Vista, Arizona, through Feb. 29, 2024.

The RQ-4 UAS has a capacity of more than 30 hours and is designed to gather imagery in real-time and in all weather conditions for intelligence, surveillance and reconnaissance operations. The unmanned platform has been deployed for Air Force missions since 2001.
https://www.govconwire.com/2020/11/northrop-books-158m-contract-to-support-south-koreas-rq-4-uas-sustainment-logistics-operations/

Drone Racing League Wagers Success on Betting Deal Jason Reagan October 29, 2020

Genius Sports is betting on the success of drone racing. The global sports data company signed a licensing agreement with the Drone Racing League to launch DRL into the skies of sports betting.

"The multi-year partnership will reimagine the gaming landscape, marking an initial step towards creating a first-ever, league-approved drone racing product in the United States," according to a DRL press release. The agreement will authorize licensed sportsbooks to attract a new audience of drone racing fans into the world of betting.
https://dronelife.com/2020/10/29/drone-racing-league-wagers-success-on-betting-deal/

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41 FAA-APPROVED COLLEGES AND UNIVERSITIES WHERE YOU CAN STUDY DRONES November 2, 2020 Sally French The Drone Girl

If you want to study drones in college, one of these 41 colleges and universities is likely for you. That's because these schools are participants in what's called the Unmanned Aircraft Systems Collegiate Training Initiative. It is organized by the Federal Aviation Administration and is designed to both better allow schools to partner with the FAA and to help students "pursue their aviation career goals" specific to drones.

To qualify for a spot on the list as an FAA-approved school, schools must offer a bachelor's or associate degree in UAS or a degree with a minor concentration or a certificate in UAS. Schools must also offer drone-related curriculum including hands-on flight practice, maintenance, uses, applications, privacy concerns, safety and federal policies.

The 41 colleges and universities where you can study drones (and that are currently participating in the FAA's UAS-CTI program) are listed here: http://www.thedronegirl.com/2020/11/02/college-study-drones/

UTAH COMPOSITES COMPANIES WIN U.S. AIR FORCE TECHNOLOGY TRANSFER GRANTS *UAMMI Press* - October 28, 2020

The winning proposals were developed with the help of the Utah Advanced Materials & Manufacturing Initiative and focus on composite material innovations for drones and advanced air mobility aircraft that can benefit USAF and be commercially developed.

ElectraFly, a Utah-based company which is developing personal-flight-aircraft submitted two winning proposals. The first is the fabrication of aircraft parts using a Carbon-Based Additive Manufacturing 3D printer provided by their partner Impossible Objects. The parts will then be tested by Weber State University's composites lab.

ElectraFly's second proposal is using an infusion process to create carbon fiber aircraft parts that are too large for the CBAM 3D printer. These parts will be created with project partner Hexcel and tested at Brigham Young University's composites lab.

The third winning proposal was submitted by Analyswift, a Utah multi-physics modeling company whose technology reduces engineering time and provides virtual testing of composite

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material structures, such as rotor blades, earlier in the design process. Their proposal is to develop an integrated computational blade engineering framework for rapid insertion of high-performance composite rotor blades into ElectraFly's aircraft. The framework will lead to prototyped parts developed by project partner Hexcel and then tested by the Weber State University composites lab. https://www.uammi.org/press/utah-companies-win-air-force-grants?mc_cid=13a470f8b6&mc_eid=75b61a87cd

UAE could emerge as drone superpower after Covid-19 NEWS JOE PESKETT NOVEMBER 1, 2020

Falcon Eye Drones Services said that government agencies in the UAE have been particularly quick to use the capabilities of drones in the fight against the coronavirus.

Rabih Bou Rashid, CEO of FEDS, said: "The rapid spread of Covid-19 has played a vital role in accelerating the adoption of the drone in a growing list of unconventional tasks." FEDS highlighted five ways on how drones can speed up the fight against the virus.

Broadcasting. Drones, equipped with loudspeakers, are significantly helpful in epidemic control by conveying information to the public, enforcing the #stayhome campaign, share key information on personal sanitation, disinfection and self-protection.

Disinfection. Drones can carry up to 16 liters of spraying disinfectant.They have a spraying efficiency of 180 mu per hour, and cancover 120,000 square meters automatically.

Detection. Drones can help detect new cases with dual visual and infrared image sensors—making it easy to measure body temperature from a safe distanace.

Monitoring and Crowd Guidance. Authorities can deploy drones to monitor people who defy government decisions, allowing strict enforcement of regulations.

Goods Delivery. Drones can deliver necessary goods without human contacts—such as samples, medicine and groceries. Drones have proven their value to those who are quarantined at home. https://www.commercialdroneprofessional.com/uae-could-emerge-as-drone-superpower-after-covid-19/

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North Dakota launches Vantis state-wide UAS BVLOS network October 29, 2020 Jenny Beechener UAS traffic management news

North Dakota has announced the launch of a nationwide beyond visual line of sight network called Vantis, overseen by the Northern Plains Unmanned Aircraft Systems Test Site. NPUASTS brings together government resources, industry leaders and public stakeholders to pioneer BVLOS activity.

Three aviation infrastructure companies have been selected to provide systems engineering and integration services to build, implement and operate Vantis. Collins Aerospace, a Raytheon Technologies Company, L3Harris Technologies; and Thales USA have been contracted to work with the Northern Plains UAS Test Site to enable real-world, scalable, commercial and public UAS BVLOS operations in North Dakota.

Created by North Dakota with an initial investment of $28 million in 2019, Vantis provides turnkey support to commercial and public UAS operators through infrastructure and regulatory approvals allowing applications and usability over a variety of industries. https://www.unmannedairspace.info/latest-news-and-information/north-dakota-launches-vantis-state-wide-uas-bvlos-network/

Engineers create morphing wing drone based on bird Scott Simmie Nov. 2nd 2020

There's a reason why shark skin has the texture it has; why geckos can cling to the wall, why bird feathers are constructed so that they can slide over one another to change the surface area and flight characteristics of a wing. And it's part of that last feature – the shape-shifting ability of some wings – that caught the attention of engineers at the science/technical institute EPFL in Switzerland. They were so intrigued…they thought they'd build a drone that incorporated this feature - A shape-shifter.

Scientists at EPFL's Laboratory of Intelligent Systems had been intrigued by the flight patterns of the northern goshawk. The powerful raptor is also exceedingly agile, capable of flying through even dense forests with ease. They noted that part of its superpowers come from the way it shifts the shape of its wings. And soon, they had a drone that could do the same thing. https://dronedj.com/2020/11/02/engineers-create-morphing-wing-drone-based-on-bird/

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Denmark launches traffic management platform for drones EUROPE NEWS JOE PESKETT NOVEMBER 3, 2020

The number of commercial drones in Denmark is expected to surpass 12,000 in five years, and the implementation of a new Danish traffic management platform seeks to accommodate the need for safe and efficient management of drone traffic in full integration with general air traffic.

The UTM system will initially be tested at a single airport but will be gradually deployed across the country from 2021. In Denmark, drones are currently only allowed to fly within the visual line of sight of the drone operator, and under tight regulations. When the UTM platform is fully operational, it will be possible for the drone operator to fly beyond visual line of sight.

The European Union Aviation Safety Agency, EASA, projects that by 2025, 200,000 drones will be airborne around the clock all over Europe.
https://www.commercialdroneprofessional.com/denmark-launches-traffic-management-platform-for-drones/

Air Force Purchase of Chinese Drones Spurs Security Concerns Brett Forrest *and* Gordon Lubold Nov. 2, 2020

The U.S. Air Force recently bought Chinese-made drones to use for testing and training, fueling concerns about continued Defense Department use of technology that lawmakers consider a threat to national security.

The Air Force Special Operations Command, the service's highly trained commando division, bought 57 drones in September from Da-Jiang Innovations (DJI), the world's largest maker of unmanned aerial systems, based in Shenzhen, China. They will be used to train airmen on how they could be used against the U.S. or its allies and how to defeat them, officials said. Air Force officials said the drones are cost-effective and useful, and a DJI spokesman said they don't pose a risk of data loss or theft.

But critics have said the drones could be used to gather information about the U.S. military and critical infrastructure, or in other instances of espionage and data collection, sending the

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information back to China. https://www.wsj.com/articles/air-force-purchase-of-chinese-drones-spurs-security-concerns-11604322017

Wing's Drone Delivery Program Extended as Part of the BEYOND Program Miriam McNabb November 02, 2020

Google's spin-off Wing has been a leader in pushing forward residential drone delivery of everyday items in the U.S. and overseas. Their initial program in Christianburg, VA partnered with major retailers like Walgreens and FedEx as well as local businesses. The program has proven to be very successful. Both residents and businesses benefit from Wing's drone delivery program, as a Wing press release explains:

- *As a result of COVID-19, we saw an increase for our service grow by 500% from February-April, as our technology helped people get the things they need without human-to-human contact.*
- *We've also partnered with additional local eateries, who told us that drone delivery is helping them offset some of the revenue losses from the lack of walk-in customers.*
- *We launched the world's first drone delivery library service to Montgomery County school students, based on the recommendation of a local librarian.*

"With the help of the Christiansburg community and Virginia Tech's MAAP, Wing has been able to offer the most advanced drone delivery service on US soil over the past year. We're excited to participate with the FAA and DOT in BEYOND, which is an important next step to enable further advancements in the U.S. drone industry," says James Ryan Burgess, CEO of Wing. https://dronelife.com/2020/11/02/wings-drone-delivery-program-extended-as-part-of-the-beyond-program/

Why scientists are sending drones into the plumes of active volcanoes November 3, 2020 in Instagram

Researchers from University College London and the University of Mexico have designed drones to gather data from the Manam Volcano, one of the most active in Papua New Guinea. The drones have been developed to enable local communities to monitor nearby volcanos and create more accurate predictions of eruptions. Their measurements could also enable scientists to learn more about some of the most inaccessible, highly active volcanoes in the world and how they contribute to the global carbon

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cycle. Measuring volcanic gas emissions help scientists forecast when a volcano is going to blow. Changes in gases like sulfur dioxide and carbon dioxide can help detect the ascent of hot magma to the surface and expulsion of CO2-rich emissions that precede eruptions.

The research team tested two types of long-range drones equipped with gas sensors, cameras and other devices. They managed to safely fly over Manam's billowing plumes and measure its emissions in a relatively accurate way. The volcano's steep slopes make it incredibly dangerous to even contemplate collecting such data on foot. https://www.optimistdaily.com/2020/11/why-scientists-are-sending-drones-into-the-plumes-of-active-volcanoes/

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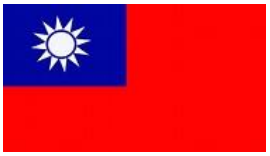
U.S. Congress notified of drone sale to Taiwan: Pentagon Mike Stone, Patricia Zengerle NOVEMBER 3, 20204



WASHINGTON (Reuters) - The U.S. State Department cleared the potential sale of four sophisticated U.S.-made aerial drones to Taiwan in a formal notification sent to Congress, the Pentagon said on Tuesday, the last step before finalizing a weapons sale that will further anger China. The $600 million deal would be the first such sale since U.S. policy on the export of sophisticated and closely guarded drone technology was loosened by the Trump administration.

The four MQ-9 SeaGuardian drones, made by General Atomic Aeronautical System, Inc of San Diego, California, would come with associated ground stations, spares and training. While the drones are armable, they will be outfitted with surveillance equipment. https://www.reuters.com/article/usa-taiwan-arms/update-3-us-congress-notified-of-drone-sale-to-taiwan-pentagon-idUSL1N2HP2SB

World's largest drone is set to transmit 5G connectivity from the stratosphere STACY LIBERATORE FOR DAILYMAIL.COM 4 November 2020

Stratospheric Platforms Limited and Cambridge Consultants announced plans to unleash a fleet 65,617 feet above the surface, each of which releases 480 steerable beams to blanket an area with the network. The teams say just 60 of the remote-controlled planes could cover the UK with 5G connectivity, but the goal is to 'connect the unconnected in the developing world.'

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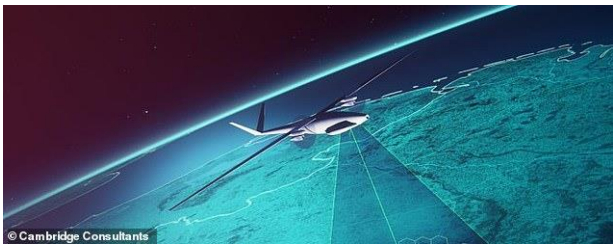
The hydrogen-powered vehicle completed the first successful test trial in September and although it is still in the proof-of-concept stage, the teams are targeting 2024 to roll out the service commercially. Scroll down for video.



The craft weighs just 264 pounds, stretches 32 feet and runs on hydrogen that produces longer endurance but releases zero emissions.

The secret sauce to the design is the antenna strapped to the drone that, according to Cambridge, produces hundreds of beams that ensure fast and even coverage across the area. https://www.dailymail.co.uk/sciencetech/article-8911237/Worlds-largest-drone-set-transmit-5G-connectivity-stratosphere-using-antenna.html?ito=1490

5Nov20

Here's how the Pentagon will test industry's counter-drone tech for an enduring capability Jen Judson 19 hours ago

A Dedrone RF-100 drone-detection sensor on the roof of Fort Lesley J. McNair's Marshall Hall

WASHINGTON — Beginning early next year, the Pentagon will host the first opportunity for industry to demonstrate counter-drone technology aimed at small systems, the next step in a plan to test out new capabilities twice a year at common test ranges, according to Army officials in charge of the effort. Pentagon leaders approved in late September a set of requirements to help counter small drones, laying a path for how industry can develop technology to plug into a single command-and-control system. The Joint Counter-Small Unmanned Aircraft Systems Office, or JCO, kicked off the pursuit with an industry open house Oct. 30.

The defense secretary delegated the Army in November 2019 to lead the effort to consolidate the wide range of counter-small unmanned aerial system capabilities into a select group of interim systems. Those systems have now been chosen, with the JCO turning its sights toward establishing an enduring collection of capabilities — while acknowledging that there's no silver bullet and that a layered approach is needed, using both kinetic and non-kinetic means, to defeat small drones. https://www.defensenews.com/unmanned/2020/11/04/heres-how-the-pentagon-will-test-industrys-counter-drone-tech-for-an-enduring-capability/

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SECOND ANNUAL FAA DRONE SAFETY WEEK SET FOR NOVEMBER November 5, 2020 Sally French, The Drone Girl

The Federal Aviation Administration's second annual National Drone Safety Awareness Week is essentially one giant virtual campaign designed to highlight a range of drone safety educational topics. The second annual FAA Drone Safety Week is set for Nov. 16 to 22, 2020.

Last year's inaugural FAA National Drone Safety Awareness Week was also primarily a virtual event (though they did encourage local flying clubs, racing teams, big companies and small startups to host their own in-person meetups and events). Similarly, this year, the FAA is encouraging those same stakeholders to host their own events, albeit virtually. The FAA's UAS safety team is also hosting its own set of virtual events. Thus, the show will go on in 2020 largely as planned. Each day of the week highlights a different drone safety theme: http://www.thedronegirl.com/2020/11/05/second-annual-faa-drone-safety-week-set-for-november/

Medical Drones: New Report Estimates Market Worth $947 Million by 2027 Miriam McNabb November 04, 2020

"Medical Drones Market Share, Size, Trends, Industry Analysis Report, Drone Type (Fixed Wing, Rotor Drone and Hybrid Drones); By Application (Blood transfer, Drugs/Pharmaceutical Transfer, Vaccination Programs), End-Use (Emergency Medical Services, Government Organizations, and Blood Banks), By Regions; Segment Forecast, 2020 –2027**"** provides detailed analysis of current projects.

"Zipline drones, the frontrunner in the market, have cumulatively flown more than 1 million kilometers in Rwanda with more than 13 thousand deliveries. In the outskirts of Kigali, drones carried 35% of blood samples to be transfused. In Ghana, the company is started delivering COVID-19 testing kits."

The pandemic has helped move drone delivery trials forward across the globe, including North America, which the report says will lead the market for medical drones. The UAS Integration Pilot Program provided opportunities in the U.S. for medical delivery projects. Delivery and logistics giant UPS has established a medical drone delivery program on large medical campuses

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and is ready to expand. https://dronelife.com/2020/11/04/medical-drones-new-report-estimates-market-worth-947-million-by-2027/

Parallel Flight Technologies Introduces Beta Aircraft Juan Plaza NOVEMBER 5, 2020

Joshua Resnick, David Adams and Bobby Hulter founded Parallel Flight Technologies to develop unmanned aerial systems to "save lives, property and the environment" that would help firefighters in the field by delivering critical supplies such as tools, fuel, food and water. Unlike helicopters, PFT drones can navigate zero visibility situations to fly in heavy smoke and at night. Last year they raised over one million dollars in an initial funding campaign and finished their flying prototype. Its beta-level aircraft will be delivered to customers in 2021. A 10X gain over existing solutions in flight-time with a heavy payload, the new drone will have applications across industries including firefighting, industrial logistics and healthcare. The aircraft is now under construction and is on track for flight testing in January 2021.

The patent-pending technology allows multirotor drones to fly for hours while carrying their own mass in payload, a ten times improvement over all-electric systems. PFT's parallel hybrid technology is unique and has never been used before in a multirotor aircraft. The result combines heavy lifting with long flight duration. The company flew its prototype in the winter of 2019 and has spent the past year focusing on testing and development.
https://www.commercialuavnews.com/public-safety/parallel-flight-technologies-introduces-beta-aircraft?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiWkRsaE1EYzNNakpqTUdWaCIsInQiOiJmRHowMmNcL3VGSk92RkRLTCsyZHh1dHFPVXlBNG5iK2FMNW05d2ZocTdqQUw1YkZCZ2pxTUNXWUNPK2t2NnFyWWVXVnBxRjNyeVU3SEo2R1RSR2VpdkZBSkpXZk5iQmozbExhVytQb0dWNUgxcEY4ZEc4UHBkbmRLZlVmQmpiMWEifQ%3D%3D

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Security Drones: Easy Aerial's New SAMS-T-MINI (Smart Aerial Monitoring System) Miriam McNabb November 05, 2020

Today, U.S.-based Easy Aerial introduced the newest in their portfolio of Smart Aerial Monitoring Systems: the SAMS-T-MINI.

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It features a 320-ft data-over-power enhanced tether, in addition to being an autonomous drone-in-a-box solution: which adds up to unlimited autonomous flight. It provides an "unbreachable" data connection for the ultimate data security.

It features a 320-foot data-over-power enhanced tether for resilient, unjammable data security. It can support 24 hours of continuous flight, even in extreme weather conditions, and offers precise hovering over the ground station. Weighing just 35 lbs and having a multiple payload capacity of 7.7 lbs, the SAMS-T-MINI is light and portable, making it ideal for mission-critical, on-the-move operations.

Easy Aerial solutions are designed and manufactured in the U.S with global civil and military clients – so their solutions are designed to be "rugged, durable, all-weather capable and designed to operate in the most inhospitable environments with little to no infrastructure support," https://dronelife.com/2020/11/05/security-drones-easy-aerials-new-sams-t-mini/

Spain announces plans for flying taxi service in Barcelona Sam Jones *in Madrid* 5 Nov 2020

First air taxis to fly in Catalan capital and Santiago de Compostela in 2022, says Enaire

"We need to move urban mobility into the third dimension: airspace. And we need to do it as efficiently and sustainably as we can," the authority's director general, Ángel Luis Arias, told an online conference this week.

Arias said Enaire was working on European projects involving the use of flying taxis and other flying vehicles to move people around urban and semi-urban areas, as well as the use of drones to deliver goods.

He added: "Enaire, in its capacity as a public company of the Ministry of Transport, Mobility and Urban Agenda, is willing to fulfil its duties to attract and help any private sector companies or public organizations that are interested in allowing Spain to position itself at the forefront of the development and operation of this new sector."
https://www.theguardian.com/world/2020/nov/05/spain-announces-plans-flying-taxi-service-barcelona

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