UAS and SmallSat Weekly News

Contents

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12Sep20

The Navy Is Preparing for a Major Unmanned Battle Test in the Pacific 9 Sep 2020

Military.com Gina Harkins

The Navy will deploy drones that operate in the air, underwater and on the surface to the Pacific next year in a big test of how the service can incorporate unmanned technology into combat situations.

Navy leaders are planning to run an "unmanned fleet battle problem" early next year, Rear Adm. Robert Gaucher, director of maritime headquarters with U.S. Pacific Fleet, said Tuesday during the Association for Unmanned Vehicle Systems International's annual defense show. "We're shooting for early 2021 to be able to run a fleet battle problem that is centered on unmanned," he said. "It will ... be on the sea, above the sea and under the sea."

The Navy regularly runs fleet battle problems -- which test deploying forces for high-end warfare -- in the Pacific and Atlantic. But they're typically carried out by carrier strike groups. Incorporating new drone technologies into the battle problem will be a big shift for the service, which plans to invest billions in new unmanned systems. https://www.military.com/daily-news/2020/09/09/navy-preparing-major-unmanned-battle-test-pacific.html

Mavic Mini video puts pandemic into stark focus Scott Simmie Sep. 11th 2020

We saw a short video the other day that brought home one aspect of the COVID-19 pandemic: The public performance spaces that now sit in silence.

The pandemic created all sorts of opportunities for photographers and videographers. Once-vibrant cities looked like ghost towns. No people, no cars. And, more often than not, the appearance of animals who decided to test the urban waters. There was an eerie quality to all of those videos because these places that are normally bustling just…weren't. They were at a standstill. Even giant metropolises looked just

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plain empty. We've never seen anything like it before in our lifetimes. And, with luck, we'll never see it again.

But nearly all of that footage focused on what things looked like from the outside: Empty streets, empty sidewalks, pin-drop cities. Few turned their lenses inwards, to explore some of the public spaces that also now feel like abandoned stage sets. See the video: https://dronedj.com/2020/09/11/mavic-mini-video-puts-pandemic-into-stark-focus/

German airports to build VTOL passenger drone infrastructure Josh Spires Sep. 11th 2020

Passenger drone manufacturer Lilium has partnered with German airports Dusseldorf and Cologne/Bonn to build VTOL passenger drone infrastructure. Lilium plans to bring its fully electric, five-seater aircraft to market by 2025.

Lilium has partnered with two airports in Germany to explore how the airports can become transport hubs for passenger drones spanning the whole North Rhine-Westphalia state. The partnership would eventually also allow Lilium to deploy its passenger drones throughout the country.

The transportation minister of North Rhine-Westphalia, Hendrik Wüst, announced the partnership. He said that the state was a perfect location to explore passenger drones, with a population of 18 million and more than 40 universities and four international trade-show locations. https://dronedj.com/2020/09/11/german-airports-to-build-vtol-passenger-drone-infrastructure/#more-35462

Tesco to trial deliveries by drone next month in Galway, Ireland Josh Spires Sep. 11th 2020

Next month, Tesco hopes to introduce drone deliveries in a limited fashion to people living in Galway, Ireland. The food retailer shared the drones would allow customers to get groceries delivered within 30 minutes of placing an order.

To get the job done correctly, Tesco has partnered with Manna Aero, a drone delivery company that has been operating in Ireland for some time now and doesn't need to jump through as many regulatory hurdles. Manna Aero has previously partnered with Just Eat to bring food deliveries to the skies and even began delivering medicine during the COVID pandemic.

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Manna Aero's delivery drones can deliver goods in just 3 minutes when flying at speeds over 50 miles per hour and if the delivery location is within a 1.2-mile radius. The drones also fly at an altitude of just 80 meters. For now, the drones will only be delivering small baskets with goods inside, but Tesco hopes to deliver large payloads in the future if the trial goes according to plan. https://dronedj.com/2020/09/11/tesco-to-trial-deliveries-by-drone-next-month-in-galway-ireland/

With Its Newest Acquisition, East West Aeronautical Predicts Drone Market Will Soar September 10, 2020 News

In the next decade, the burgeoning commercial drone industry is projected to generate more than $82 billion for the U.S. economy and, by 2025, could support as many as 100,000 fulltime career jobs.

Captain Eric Robinson, a jet airplane and helicopter pilot with East West Aeronautical, was once a fierce opponent to UAVs and is now convinced they are a positive benefit to the aviation industry. Captain Robinson, CEO of EWA, has recently purchased a franchise from Arcadia Aerospace-EU to sell, support, and manufacture UAVs in the U.S.

Despite his earlier reservations, Robinson explains, "I was not a fan of drones because I thought they would replace pilots; however, I have come to realize, in fact, that drones have increased the career options for pilots. Other professional aviators, including Aircraft Mechanics, Air Traffic Controllers, all come with some of the skill sets needed to fly Industrial sized drones." The projected need for career drone Pilots by the U.S. Department of Labor is far greater than any other pilot job, not to mention UAV mechanics and technicians." https://uasweekly.com/2020/09/10/with-its-newest-acquisition-east-west-aeronautical-predicts-drone-market-will-soar/?utm_source=rss&utm_medium=rss&utm_campaign=with-its-newest-acquisition-east-west-aeronautical-predicts-drone-market-will-soar&utm_term=2020-09-11

'Unmanned Valley' welcomes first drone companies EUROPE NEWS SAM LEWIS SEPTEMBER 11, 2020

The Netherlands has welcomed the first drone and aerospace companies to its 'Unmanned Valley', a testing site in the country's disused Valkenburg naval air base in Katwijk.

The site is aiming to become a "fully-fledged ecosystem for drones and other sensor-based innovations", inviting many of the biggest players in the industry.

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So far Aerialtronics, Deck180, Drone Flight Company, Dutch Drone Academy, Elkay International (Europe) and Marshall Netherlands are the first companies to move in. Atmos, Drone Light Labs and Mapture.ai will reportedly be settling in Unmanned Valley in the coming months.

In the next phase, the Central Government Real Estate Agency is expected to create 1700sqm of space for a mix of startups and scale-ups, mature companies and other institutions.

Theo de Vries, Unmanned Valley program manager, said "Drones often only make headlines as a threat to air traffic or as a pizza delivery service. These companies show the reality is different and the economic and social potential for the Netherlands is gigantic."
https://www.commercialdroneprofessional.com/unmanned-valley-welcomes-first-drone-companies/

14Sep20

North Dakota is Building a Statewide BVLOS Network for Drones Miriam McNabb September 11, 2020

North Dakota and the Northern Plains UAS Test Site have been a hot spot for the commercial drone industry since the industry started to grow. With agriculture, military installations, and the oil and gas industry all represented, the state is an ideal place to test new commercial applications. Waivers in some cases require ground-based physical infrastructure to detect objects, combined with airborne sensors and sophisticated sense and avoid technology – so developing a statewide BVLOS network could benefit both drone companies and their customers.

Three leading aviation infrastructure companies – Collins Aerospace, a Raytheon Technologies

Company; L3Harris Technologies; and Thales USA – were selected to work with NPUASTS to develop and employ the physical infrastructure for the network. The Test Site has selected Volansi's VOLY C10 for Site Acceptance Testing and use-case development. "This aircraft will test installed network components, ensure safety and reliability of the network, perform use-case development flights and help NPUASTS set the standard requirements for any aircraft seeking to fly on the network." https://dronelife.com/2020/09/11/north-dakota-is-building-a-statewide-bvlos-network-for-drones/

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Proposed Remote ID Rule: Drone Industry Stakeholders Urge FAA to Make Essential Changes Miriam McNabb September 11, 2020

The proposed Remote ID rule was several years in the development – but as the FAA reviews the thousands of comments it received on the rule, industry stakeholders still hope that changes to accommodate non-commercial interests will be made.

Today, drone industry stakeholders incuding the Academy of Model Aeronautics, drone delivery and UTM company Wing, the Aircraft Owners and Pilots Association and the Experimental Aircraft Association sent a letter to the FAA urging them to make to "essential changes" to the proposed remote ID rule.

The AMA has been on the forefront of efforts to work with the FAA to accommodate their members and other model aircraft hobbyists in new regulations. Despite the AMA's long record of safety, the proposed Remote ID rule would limit hobbyists. Google spin-off Wing has long advocated for a policy of open skies for all – arguing that the commercial industry and hobbyists can safely share the airspace. AOPA and EAA also represent their members in asking for the rule to accommodate young fliers and a wide variety of aircraft. https://dronelife.com/2020/09/11/proposed-remote-id-rule-drone-industry-stakeholders-urge-faa-to-make-essential-changes/

East West Aeronautical Predicts Drone Market Will Soar PRESS 2020-09-14

Recently, the FAA gave Amazon approval to use Unmanned Aerial Vehicles to deliver packages to its customers. In the next decade, the burgeoning commercial drone industry is projected to generate more than $82 billion for the U.S. economy and, by 2025, could support as many as 100,000 fulltime jobs.

Captain Eric Robinson, a jet airplane and helicopter pilot with **East West Aeronautical (EWA)**, has recently purchased a franchise from Arcadia Aerospace-EU to sell, support, and eventually manufacture UAVs in the U.S. Arcadia Aerospace has a product line of UAVs in Belgium.

Robinson explains, "I was not a fan of drones because I thought they would replace pilots; however, I have come to realize, in fact, that drones have increased the career options for pilots. Other professional aviators, including Aircraft Mechanics, Air Traffic Controllers, all come with some of the skill sets needed to fly Industrial sized drones. The projected need for career

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drone Pilots by the U.S. Department of Labor is far greater than any other pilot job, not to mention UAV mechanics and technicians." https://www.uavexpertnews.com/2020/09/east-west-aeronautical-predicts-drone-market-will-soar/?utm_source=Master&utm_campaign=8daca4e675-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-8daca4e675-89168288

Zipline joins forces with supermarket giant Walmart for drone delivery program

APPLICATION DELIVERY NEWS UNITED STATES SAM LEWIS SEPTEMBER 14, 2020

Zipline operates the world's largest drone delivery network and was founded in 2016 in Rwanda. In a post on Walmart's corporate site today, senior vice president of customer product, Tom Ward, confirmed that the trial had the potential to expand into a more general product delivery service, through which customers could buy a range of items.

Zipline's "really cool" technology will first be trialed for the delivery of health and wellness products near Walmart's Arkansas headquarters, with no word on when the program may expand nationwide. Zipline will operate from a Walmart store and can service a 50-mile radius, which is about the size of the state of Connecticut.

"Not only does their launch and release system allow for quick on-demand delivery in under an hour, but it also eliminates carbon emissions, which lines up perfectly with our sustainability goals. https://www.commercialdroneprofessional.com/zipline-joins-forces-with-supermarket-giant-walmart-for-drone-delivery-programme/

Full steam ahead for Flylogix with Isles of Scilly deal APPLICATION DELIVERY SAM LEWIS SEPTEMBER 14, 2020

A new deal with the Isles of Scilly Steamship Company will make deliveries from Land's End to the Isles of Scilly over the course of a two-year partnership. The first test flight, using Flylogix's remotely-piloted fixed-wing aircraft, is expected before the end of the year..

The partners aim to create a larger, bespoke UAV for the purpose after initial trials.

Ian Howard, chair of the Isles of Scilly Steamship Group, commented: "This is about using innovation to provide additional services to the community. We want to explore whether a UAV

freight service is technically and commercially feasible using a new generation of environmentally friendly unmanned aircraft." https://www.commercialdroneprofessional.com/full-steam-ahead-for-flylogix-with-isles-of-scilly-deal/

The DroneUp Patent Shows Why Tom Walker Rules His Space Miriam McNabb August 11, 2020

A DroneUp patent, published today, demonstrates just why the company is leading the pack of large service providers.

Three years ago, Tom Walker and his partners had a great idea. What if there were an automated system that allowed a central agency like DroneUp to enter a job into a pilot network database; figure out which pilots were appropriate, available, and local; and then send them the job offer via an app? Then, when the right pilot for the job accepted, the requestor could send more details on the job directly to them. It was a great idea designed to make the whole system of a drone services company work well for both the central agency and the pilots. Investors loved it, pilots raved about it.Then they had an even better idea. What if we patent it?

That patent – Multiplexed Communications for Coordination of Piloted Aerial Drones Enlisted to a Common Mission – has now been granted. The patent issued today by the PTO relates to a web-based platform for managing and communicating with drone pilots and assigning them missions. It's the same concept that has allowed Walker, who founded DroneUp in 2016 and is listed as an inventor on the patent, to build a network of licensed, vetted and trained pilots; keep them working; and make it pay. https://dronelife.com/2020/08/11/droneup-patent/

virginia launches drone information exchange service BEN SAMPSON 17TH AUGUST 2020 DRONES & AIR TAXIS

The Virginia Department of Transportation is one of the key stakeholders in a new project to enable sharing information about unmanned aerial systems, to address key safety and policy concerns while keeping the airspace open, secure, and integrated within Federal Aviation Administration control.

The Virginia Flight Information Exchange is a platform for state and local government agencies to publish and share advisory information with each other, UAS Service Suppliers, unmanned system operators and the public to promote transparency and public safety. The pilot program

will evaluate the benefits of information sharing, inform thoughtful regulation and demonstrate a state-supported approach to UAS communications and coordination.

The Virginia Flight Information Exchange will be the first state-sponsored authoritative Supplemental Data Service Provider to exist in the FAA's UAS Traffic Management, which is an ecosystem of infrastructure and protocols enabling the management of low- altitude drone operations. https://www.aerospacetestinginternational.com/news/drones-air-taxis/virginia-launches-drone-information-exchange-service.html

Autoflight unveils its V400 eVTOL cargo and passenger drone Josh Spires Sep. 14th 2020

Chinese passenger drone company Autoflight recently unveiled its V400 Albatross cargo and passenger drone at the 2020 World UAV Conference in Shenzhen, China. It comes in two models, with the first full electric and the other hybrid. Although the two models run on different fuel sources, they both have a maximum takeoff weight of 882 pounds and a 220 pound payload capacity. It has been designed for long-distance logistics and cargo operations.

The big difference in the two versions is the range. The electric model has a range of 186 miles while the hybrid model has a range of 621 miles. Both models have a wing span of 29 feet, a height of 3.6 feet, and a length of 22 feet.

The full-electric model uses two cruising motors, one in the front and rear, with lift surfaces and eight lift motors getting the V400 off the ground. The hybrid uses a combustion engine at the rear for cruising while keeping the same lift surfaces and eight motors for lift.

It is equipped with various redundant systems including flight control, sensors and radars, along with an optional parachute. The V400 also has an onboard flight control system and a sense-and-avoid system, making it capable of flying autonomously. To make sure it doesn't lose connection in the air, it is equipped with 4G and 5G equipment.
https://dronedj.com/2020/09/14/autoflight-unveils-its-v400-evtol-cargo-and-passenger-drone/#more-35648

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15Sep20

General Atomics unveils 'ultra-long endurance' replacement for MQ-9 Reaper

Garrett Reim14 September 2020

General Atomics Aeronautical Systems has unveiled a rendering of its next-generation intelligence, surveillance and reconnaissance and strike unmanned air vehicle as a proposed replacement of the US Air Force's MQ-9A Reaper. The flying-wing aircraft is designed to have "ultra-long endurance", General Atomics president David Alexander said on 14 September.

"We're embracing ultra-long endurance, to keep our next-generation ISR in the fight for longer periods than many ever imagined possible," he says. The company's proposed aircraft will have the "ability to stay engaged in the fight far longer than current-generation", Alexander adds.

The USAF's MQ-9A has an endurance of 27h, while the US Army's MQ-1C Grey Eagle Extended Range can be flown for up to 42h.

The long, thin flying-wing design of the UAV also appears to have a high aspect, giving the aircraft a better lift-to-drag ratio, which would be helpful for efficiently flying for long periods of time. The flying-wing design also is inherently stealthy, as the shape has fewer angles to reflect radar than a traditional tube-and-wing airframe. To further hide itself from radar, the UAV has small slits for engine inlets which are set behind its leading edge. Jet turbine blades, with their many edges and twists, are highly reflective of radar, so concealing their features helps to reduce an aircraft's radar cross section. https://www.flightglobal.com/military-uavs/general-atomics-unveils-ultra-long-endurance-replacement-for-mq-9-reaper/140162.article

Sky Drone Flies the 5G Sky with Hong Kong Telecom Jason Reagan September 14, 2020

UAV-tech firm Sky Drone is taking flight with Hong Kong-based China Mobile HK to navigate the sky path from 4G to 5G.

Under the agreement, CMHK and Sky Drone will promote 5G drone solutions to government agencies and large corporations seeking autonomous UAV systems. Solutions will include infrastructure monitoring, surveillance and delivery coupled with real-time, AI data analysis using CMHK's government-supported 5G regional lab.

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"5G is a game-changer in the world of connected drones," Sky Drone CEO Boris Boege said. "Our record-breaking, low latency with 4G connected drones will be lifted to a new level by using 5G. Coupled with higher bandwidth and a virtually unlimited range, truly autonomous drones are at the brink of mass market adoption." https://dronelife.com/2020/09/14/sky-drone-flies-the-5g-sky-with-hong-kong-telecom/

WATCH: Elios deployed to help scientists reach ice caves in Greenland

UNCATEGORIZE ALEX DOUGLAS SEPTEMBER 15, 2020

A new video created by Swisscom Ventures highlights a research expedition sponsored by Moncler to explore the deepest ice caves in the world using Flyability's Elios drone.

In partnership with Swisscom, Flyability released a video showcasing the way that its indoor drone technology was used by a team of researchers to explore and document some of the deepest ice caves in the world, located in Greenland. The expedition was sponsored by apparel company Moncler and took place over two weeks in 2018 on the Greenland ice sheet, the second largest body of ice in the world after Antarctica.

Research focused on an area about 80 kilometers east of Kangerlussuaq, where scientists wanted to study the movement of water deep underground to better understand the effects of climate change on the melting ice. In a past expedition, scientists were only able to repel to a depth of about 130 meters within the giant vertical ice shafts (called moulins) that led to the underground rivers they wanted to study. On this expedition, scientists used the Elios, Flyability's collision-tolerant drone, to reach the very bottom of the moulins and learn more about the movement of the water and the shape and stability of the ice shafts. https://www.commercialdroneprofessional.com/watch-elios-deployed-to-help-scientists-reach-ice-caves-in-greenland/

Volansi Raises $50 Million to Accelerate Middle-Mile Drone Delivery September 15, 2020 News

Volansi, Inc., the leader in vertical take-off and landing middle-mile drone delivery services, today announced that it has closed $50 million in a Series B round of funding. Led by Icon Ventures, others include existing investors Lightspeed Venture Partners and YCombinator as well as new investors Harpoon Ventures and Merck Global Health Innovation Fund. In addition to the company's funding, Volansi also announced

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Joe Horowitz, managing partner of Icon, and Barry Eggers, founding partner of Lightspeed, will join its Board of Directors.

Volansi provides automated point-to-point drone delivery services for time-critical parts and urgent medical supplies for enterprise customers and the U.S. Department of Defense. This new funding will allow Volansi to expand its team, launch new projects and scale current initiatives in both emerging markets and in the US. https://uasweekly.com/2020/09/15/volansi-raises-50-million-to-accelerate-middle-mile-drone-delivery/?utm_source=rss&utm_medium=rss&utm_campaign=volansi-raises-50-million-to-accelerate-middle-mile-drone-delivery&utm_term=2020-09-15

Volansi chosen for North Dakota's statewide BVLOS network Josh Spires Sep. 15th 2020

California-based drone delivery company Volansi has just had its VOLY C10 drone accepted for testing and use-case development for North Dakota's statewide beyond visual line of sight network. The VOLY C10 will allow testing of installed hardware for the BVLOS network.

The VOLY C10 delivery drone will be used to ensure the safety and reliability of the BVLOS network are up to scratch and will perform specific use-case development flights. It will also allow the Northern Plains UAS Test Site to set standard requirements for any future drones that want to fly on the BVLOS network.

VOLY C10 is capable of flying up to a distance of more than 50 miles with a maximum payload of 10 pounds. The C10 was chosen as it allows for various technologies to be installed with ease, such as Command and Control links or onboard Detect and Avoid. The delivery drone was also able to meet the payload specifications for the various test flights.

North Dakota's statewide BVLOS network aims to enable commercial drone flights across the state. So far, NPUASTS has selected three companies, Collins Aerospace, L3Harris Technologies, and Thales USA to build out the physical infrastructure with Volansi joining them with its C10 drone. https://dronedj.com/2020/09/15/volansi-chosen-for-north-dakotas-statewide-bvlos-network/

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Drones help marine biologists find and save distressed seals Josh Spires Sep. 15th 2020

Marine biologist Genni Brookshire and her team are using drones to help find and save distressed seals and other animals. However, due to the noise created by drones, Brookshire had to do some research on which would be best suited for the job. So Brookshire and her team partnered with Embry-Riddle Aeronautical University to test the pitch and volume of 10 drones.

Out of the 10 drones tested, four of the best were tested in the field. To ensure the test flights were safe and successful, the team used Verizon's Skyward platform to manage the flights. According to Brookshire, the tests were a success and allowed the team to gather data on how to fly the drones around animals, what altitudes the drones needed to be flown at and the angles the drones needed to be at to best see the wildlife. The team was also able to determine which stealth propellers reduced the drone's noise. https://dronedj.com/2020/09/15/drones-help-marine-biologists-find-and-save-distressed-seals/

16Sep20

Valqari Delivers the Goods with New Drone Delivery Station Jason Reagan September 15, 2020

Chicago drone delivery startup Valqari recently launched the Drone Delivery Station, a UAS landing solution with six separate storage units to accommodate multiple deliveries or pickups.

The Station is entirely drone agnostic and enables a fully autonomous point-to-point delivery to provide a universal location for drone deliveries and pick-ups up to 25 pounds. The station maintains a digital chain of custody throughout the entire process and keeps packages secure until retrieval. The station can accept a variety of parcels, including winched and hover-dropped packages. Pickups and deliveries can be completed via landed drones and traditional methods.

"This innovation reinforces Valqari's commitment to addressing common logistical problems associated with drone deliveries for residents, commercial businesses, pharmaceutical, meal-delivery services and government." https://dronelife.com/2020/09/15/valqari-delivers-the-goods-with-new-drone-delivery-station/

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GM explores market for electric 'flying cars,' sources say SEP 15 2020 *Feline Lim Reuters*

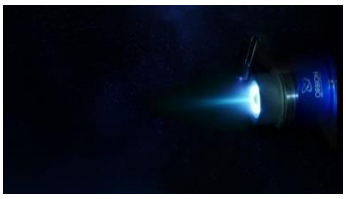
A Volocopter air taxi performs a demonstration in Singapore, October 22, 2019

General Motors is exploring options in the aerial taxi market, including whether to build the vehicles known colloquially as "flying cars," as part of a push by the U.S. automaker to look for growth in related transportation markets. Chief Executive Mary Barra on Monday briefly made her first reference ever to Detroit-based GM's interest in the air taxi market, saying that it fit with development of electric vehicles and its Ultium advanced electric battery.

"We believe strongly in our EV future and not just for vehicles," she said at an RBC conference. "The strength and flexibility of our Ultium battery system opens doors" for many uses, she added, "including aerial mobility." https://www.cnbc.com/2020/09/15/-gm-explores-market-for-electric-flying-cars-sources-say.html

Blue Canyon selects Orbion electric thrusters for DARPA's Blackjack satellites

Sandra Erwin September 15, 2020



Orbion is a four-year-old startup in Houghton, Michigan, that specializes in Hall-effect plasma thrusters for small satellites.

WASHINGTON — Small satellite manufacturer Blue Canyon Technologies announced Sept. 15 it selected Orbion Space Technology to supply the electric propulsion system for the U.S. military's Blackjack constellation. Blue Canyon is producing four satellites for the Defense Advanced Research Projects Agency's Blackjack program. DARPA plans to launch as many as 20 small satellites to demonstrate that a mesh network in low Earth orbit can meet military requirements at lower cost and shorter design cycles than traditional Pentagon programs.

DARPA in October 2018 selected Colorado-based Blue Canyon as one of the satellite bus suppliers for Blackjack. The agency in June 2020 awarded the company a $14.1 million contract to manufacture four satellites, with options worth $99 million for up to 20 satellites.

Orbion is a four-year-old startup in Houghton, Michigan, that specializes in Hall-effect plasma thrusters for small satellites. https://spacenews.com/blue-canyon-selects-orbion-electric-thrusters-for-darpas-blackjack-satellites/

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AeroVironment to start production on larger Switchblade ahead of military deployment Garrett Reim 10 September 2020

AeroVironment plans to start low-rate production of a larger variant of its Switchblade loitering munition ahead of operational deployment with an unnamed military customer. The company says the new Switchblade is aimed at the tactical missile market currently occupied by the Lockheed Martin AGM-114 Hellfire, Lockheed/Raytheon Javelin and Raytheon TOW missiles.

The original Switchblade, which is still in production and operational, was introduced in 2011. The weapon is a drone that is tube-launched, powered by an electric motor-driven push-propeller and carries a grenade-sized munition in its nose. It also carries an optical camera that allows operators to aim it towards soft targets.

The larger Switchblade variant offers a longer range and carries a bigger munition, although AeroVironment has provided no specifics. “We continue to believe this larger Switchblade variant represents a game changing solution to disrupt a larger segment of the missile market currently dominated by legacy systems,” says Nawabi. “These legacy missiles accounted for more than a $1 billion in government fiscal year 2020.” https://www.flightglobal.com/military-uavs/aerovironment-to-start-making-larger-switchblade-ahead-of-military-deployment/140131.article

Deuce Drone Demonstrates UAS Package Delivery Service INSIDE UNMANNED SYSTEMS SEPTEMBER 14, 2020 AIR

The test took place on a closed course and demonstrated key aspects of how the integrated service would work, including the ordering app, the automated drone flight management system, the package management system and sensor safety systems.

The company began technical development of the service in April. The goal is to design software, package management systems, customer apps and other technology to make it possible for UAS to safely deliver packages between businesses and customers.

During the test, the drone completed automated flights between several takeoff and landing areas. The drone also was able to identify the landing zone and make precision landings. Sensor object detection with flight control and the interactive app were also demonstrated. https://insideunmannedsystems.com/deuce-drone-demonstrates-uas-package-delivery-service/

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17Sep20

IAI Heron UAV touches down at Ben Gurion airport Craig Hoyle16 September 2020

Israel Aerospace Industries (IAI) has claimed a world-first, after a Heron unmanned air vehicle touched down at Tel Aviv's Ben Gurion International airport on 16 September.

Conducted in association with the Civil Aviation Authority of Israel and Israel Airports Authority, the sortie involved the medium-altitude, long-endurance Heron taking off from Ein Shemer airfield. It returned to the site after having touched down at Ben Gurion "alongside commercial flights occupying civilian air space", the company says.

The entire take-off, flight and landing were operated from the Ein Shemer control station located approximately 27nm north of Tel Aviv.

IAI says the demonstration "proves the maturity and safety" of its Long Runner operating systemhat t allows users to perform long-range missions of over 810nm using satellite communications, and including automatic take-off and landing.

With a maximum take-off weight of 1.2t, the Heron has a 16.6m (54ft 4in) wingspan. The surveillance type has a maximum operating endurance of 45h while operating at up to 35,000ft.

"The future of the world of aviation will need to allow unmanned aerial vehicles to land at civilian airports," notes Moshe Levy, general manager of IAI's Military Aircraft Group. https://www.flightglobal.com/defence/iai-heron-uav-touches-down-at-ben-gurion-airport/140192.article

Drone Delivery in the Era of the Pandemic: From the Floor at Commercial UAV Expo Miriam McNabb September 16, 2020

At Commercial UAV Expo this morning, a panel of the top players in drone delivery came together to discuss drone delivery in the pandemic. Commercial Drone Alliance Executive Director Lisa Ellman moderated a panel of representatives from top drone delivery companies. Margaret Nagle, Head of Regulatory Affairs for Wing; Conor French, General Counsel for Zipline; and Kevin Wasik, Head of

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Business Development at UPS Flight Forward, discussed how things have changed for drone delivery in the pandemic – and what policy changes they'd like to see.

Wing is operating in 3 countries right now: in Australia, the U.S., and Finland. Wing has made tens of thousands of commercial drone deliveries to suburban homes. Customers order on an app… the drone delivers the package by gently lowering it to their doorstep. Nagle says that the areas they service are ready for drone delivery and anxious to see it expand.

Zipline is performing 300- 500 deliveries per day and is an integral part of the health systems in Rwanda and Ghana. In Rwanda, where Zipline delivers almost 70 percent of the blood supplies distributed in the country, the health outcomes are stunning.

UPS has been focused since day one on the medical industry. Through their collaboration with Matternet, they've been transporting blood samples by drone on the Wake Med campus to allow specimens to be processed sooner. They are now carrying infusion kits for cancer patients with a half-life of only 30 minutes. https://dronelife.com/2020/09/16/drone-delivery-in-the-era-of-the-pandemic-from-the-floor-at-commercial-uav-expo/

Here's how Wing Aviation kept up with toilet paper demand during COVID Josh Spires Sep. 16th 2020

In a recent interview with the Brisbane Times, Wing's head of Australian operations, Terrance Bouldin-Johnson shared how the company kept busy during the lockdown period. They saw an increase of five times in May compared to the previous month. During this period, the company also gained hundreds of new users, providing more business to Wing and to the local businesses using the drone delivery network.

For now, only nine businesses are delivering with Wing, including a coffee shop, grocery store, hardware store, sushi restaurant, and a golf store. The benefit of having a wide range of businesses linked to the delivery service means that majority of the goods needed for day-to-day life can be delivered by drones. You can get groceries and the all-important toilet paper from the grocery store, while still being able to 'eat out' while stuck in lockdown. https://dronedj.com/2020/09/16/heres-how-wing-aviation-kept-up-with-toilet-paper-demand-during-covid/

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Black Swift Technologies Garners NASA Contract to Study Venus Atmosphere via Drone MARCO MARGARITOFF JUNE 21, 2018

Boulder-based drone company Black Swift Technologies, which recently partnered with NASA's Jet Propulsion Lab for drone-infused studies of Costa Rican volcanoes, has just been awarded a contract with the space agency to develop unmanned aerial systems that could study Venus' upper atmosphere. NASA has provided the company with the basic specifications for the kind of vehicle like the size, weight, and payload minimum required.

"They're looking for vehicles to explore just above the cloud layer," said Black Swift founder Jack Elston of his new patron. He added that NASA is particularly eager "to look for organic material or evidence of that material in the upper atmosphere."

The contract itself is a six-month, $125,000 deal, which Black Swift will use to design the physical drone and the required software to run it. https://www.thedrive.com/tech/21659/black-swift-technologies-garners-nasa-contract-to-study-venus-atmosphere-via-drone?fbclid=IwAR2s5b9skfAsXaotYpW4YAVu4ShLfRVCzA2MvwclqGZbuTmgIDcCQMxmGvU

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Anduril Unleashes Ghost Defense Drone Jason Reagan September 17, 2020

Drone provider Anduril is telling a new ghost story – with high-flying results. The California-based startup this week announced the launch of the Ghost 4 "intelligent VTOL" drone. The American-manufactured, single-rotor drone joins Anduril's product growing suite of defense technology solutions.

The Ghost 4 provides "real-time intelligence, surveillance and reconnaissance capabilities, creating a common operating picture that enables servicemen and women to make more informed decisions." "The Ghost platform drastically reduces manpower and pilot skill requirements, enabling one operator to command and control large teams of autonomous Ghosts from a single ground control station.."

The autonomous, modular drone system operates on Anduril's secure Lattice software platform. Ghost's all-electric powertrain provides more than 100 minutes of flight at a full

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mission payload with a near-silent acoustic signature. https://dronelife.com/2020/09/17/anduril-unleashes-ghost-defense-drone/

FAA IPP Update: From the Floor of Commercial UAV Expo Miriam McNabb September 17, 2020

At this morning's Commercial UAV Expo Keynote Panel, Erik Amend, Executive Office Manager of the FAA UAS Integration Office, gave an update on the FAA IPP. Integration Pilot Program (IPP) participants gave their insights on how the program has benefited the communities they serve and the drone industry.

As many of the FAA IPP programs are measuring success, "Everyone wants to know what's next," says Amend. The FAA intends to continue to expand IPP projects to gather more data on expanded operations and to stretch the breadth of applications that they're working on. "We're working with existing participants to form new agreements; we're working with Congress and the DoT; and we expect to make an announcement soon," says Amend.

The scope of the IPP has been broad: including energy applications, drone delivery, BVLOS flight, public safety, and environmental projects. "Everybody has a chance to recognize the benefits," says Amend. https://dronelife.com/2020/09/17/faa-ipp-update-from-the-floor-of-commercial-uav-expo/

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