



UAS and SmallSat Weekly News

Contents

- 2 Army Designs New Camera Drones to Be Fired from Grenade Launchers
- 2 Partnership will Donate Drones and 3D Modeling Software During COVID-19 Crisis
- 3 Kazakhstan Uses Drones To Patrol Capital City Nur-Sultan During COVID-19 Lockdown
- 3 Do we need a drone emoji?
- 4 Emergency Responders Seek the Last Drone Standing
- 5 Are Drones The Next Big Thing In Community Policing?
- 6 Police drone rescues lost hiker in Alaska
- 7 US regulations, infrastructure hold down cargo delivery by drone
- 7 ANSI Pilots Drone Standards Guide
- 8 FAA adds additional test sites under UTM Pilot Program (UPP) phase two
- 8 Commercial drone market to reach 2.91 million units by 2023
- 9 Elbit Wins \$20M Latin American UAS Upgrade Deal
- 10 FAA Investigates Drone Flying Over Manhattan to Remind People of Social Distancing
- 10 DJI Commits 100 Drones to U.S. Public Safety Agencies for Disaster Relief
- 11 U.S. attorney general highlights 'new threat' to security from drones
- 11 Exolaunch signs first launch agreement with SpaceX
- 12 Unmanned Helicopter Integrated into Mars Perseverance Rover
- 12 Utility Drones Adapted for Pandemic Services
- 13 AeroVironment Bags \$2.4 Million Contract for Small Unmanned Aircraft Systems
- 13 Using Drones to Monitor Social Distancing is Now a Thing – is That Creepy?
- 14 The Coronavirus Effect: Skydio Forced to Stop Shipping Drones
- 15 Drone flight launches first-ever insulin drop
- 15 Israeli police use drones to check in on virus patients
- 16 Skyports and CAA to trial revolutionary BVLOS flights in shared airspace
- 16 New Acecore loudspeaker drone for coronavirus lockdown enforcement
- 17 New Indoor Drone Uses UVC Lights for Disinfection of Essential Businesses
- 18 Wing makes emergency coronavirus drone deliveries in Virginia
- 18 Workhorse Group expands the HorseFly last mile delivery patent portfolio
- 19 FAA Issues Regulatory Guidance on Drone Use for Coronavirus Response Efforts, Wing's Delivery Program
- 20 "Mapping to a drone is what calling is to a phone," says Hammer Missions CEO



UAS and SmallSat Weekly News

11Apr20

Army Designs New Camera Drones to Be Fired from Grenade Launchers 10 Apr

2020 Military.com Matthew Cox



Once fired from a M320A1 40mm grenade launcher, soldiers can control the Grenade Launched Unmanned Aerial System with a handheld device and receive video feed from the drone's onboard camera, John Gerdes, a mechanical engineer with Army Research Lab, said in a recent Army news release. "If there is something you want to look at, but you have no idea where it is, that's where the drone

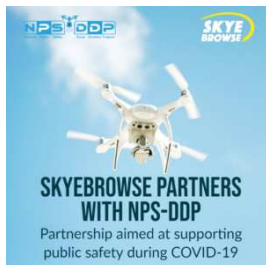
comes in."

The GLUAS has two variants. One is a small, paragliding system with folding blade propellers and Mylar paragliding wings to help it stay in the air, according to the release. The other variant is a helicopter-style that hovers on a gimbaling set of coaxial rotors. The grenade-launched drone has a two-kilometer range with a projected battery life that could top **90 minutes** and is capable of operating up to **2,000 feet** in the air, the release states.

<https://www.military.com/daily-news/2020/04/10/army-designs-new-camera-drones-be-fired-grenade-launchers.html>

Partnership will Donate Drones and 3D Modeling Software During COVID-19

Crisis Miriam McNabb April 09, 2020



The National Public Safety Drone Donation Program ([NPS-DDP](#)) was set up to address the needs of community public safety departments. Now, 3D modeling solutions company [SkyeBrowse](#) has partnered with NPS-DDP to **donate the software** that departments need to use the drones for modeling.

The drone industry has stepped up to help in all kinds of ways during the pandemic. This latest partnership is another great example of the industry working together to serve communities.

Bobby Ouyang, CEO of SkyeBrowse, said: "It is very important that we find ways we can contribute to reducing the impact of COVID-19. Our primary goal at SkyeBrowse has always been to **support first responders** and we are very thankful to NPS-DDP for providing us with the right platform to contribute during these unfortunate times." *SkyeBrowse and NPS-DDP press*

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com



UAS and SmallSat Weekly News

release: <https://dronelife.com/2020/04/09/partnership-will-donate-drones-and-3d-modeling-software-to-public-safety-organization-during-covid-19-crisis/>

Kazakhstan Uses Drones To Patrol Capital City Nur-Sultan During COVID-19 Lockdown April 9, 2020 News



[KazUAV](#), Kazakhstan's leading drone service provider and a member of Japan-based [Terra Drone Corporation](#), has been working at the frontlines to keep communities safe amid the COVID-19 pandemic outbreak. KazUAV has been helping the Nur-Sultan Police Department patrol the borders of the locked-down capital city with drones, ensuring 'contactless' surveillance and fast-paced operations.

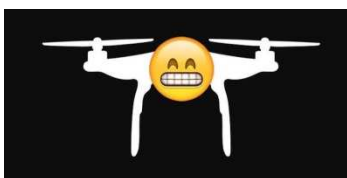
The Central Asian oil-rich nation closed its borders and locked down its main cities after confirming the first coronavirus case on March 16. Some of the guidelines include country-wide travel restrictions, suspension of public gatherings and implementation of stringent sanitation measures.

All entrances and exits from Nur-Sultan have been completely blocked, mobilizing multiple law enforcement agencies. Armored vehicles, barriers and concrete blocks are being used to manage the movement from surrounding villages.

Using drone-mounted cameras with both visible and infrared sensors, the KazUAV team broadcast all captured data, as well as the exact coordinates of objects of interest, directly to the operational headquarters command center. This has led to the authorities discovering multiple bypass roads and irregularities in the locked-down area – without which, the quarantine measures could not have proven effective.

https://uasweekly.com/2020/04/09/kazakhstan-uses-drones-to-patrol-capital-city-nur-sultan-during-covid-19-lockdown/?utm_source=rss&utm_medium=rss&utm_campaign=kazakhstan-uses-drones-to-patrol-capital-city-nur-sultan-during-covid-19-lockdown&utm_term=2020-04-10

Do we need a drone emoji? Sean Captain Apr. 10th 2020



There seems to be an emoji for everything. And often there are multiple emojis, like three kinds of cocktails. But a drone emoji is not among the images you can add to your texts and emails. A new campaign by drone services company DroneUp aims to change



UAS and SmallSat Weekly News

that.

Last month, the company submitted a proposal to the Unicode Consortium to include a drone emoji in its next release of emojis, which will debut in 2021. “We have received a confirmation of receipt at this time, and await additional feedback,” DroneUp spokesperson Amy Wiegand told me.

In the meantime, the company is making some noise to get the public excited. This week it launched a public relations campaign called “[It’s time for a drone emoji](#).” The campaign has a Twitter hashtag, #DroneEmoji, as well as a [petition on Change.org](#) calling on the Unicode Consortium to approve their application. Support so far has been...pretty mild.

It does seem odd, though, that such a prominent piece of technology is missing from the emoji pantheon. What do you think? Are you often looking in vain for a quadcopter to pop into your digital missives? Is it time for a drone emoji? <https://dronedj.com/2020/04/10/do-we-need-a-drone-emoji/>

11Apr20

Emergency Responders Seek the Last Drone Standing April 9, 2020 News



Current technology limitations are hindering the efficiency of life-saving missions. These limitations include short battery life, lack of a dedicated communications network and the inability of unmanned aircraft systems to carry a heavy payload.

To address these shortcomings, the National Institute of Standards and Safety Public Safety Communications Research have launched the [First Responder UAS Endurance Challenge](#) with prize offerings totaling **\$552,000**.

The challenge, which will be hosted by [ASU Research Enterprise](#), in partnership with Capital Consulting Corporation in April 2021, was created to crowd-source inventive drone designs that will **support first responders**. The first window to receive team funding extends through April 30.

Vertical take-off and landing - The capability to take off and land from a standing start is critical in situations where there isn’t room or terrain for a runway-style take-off.



UAS and SmallSat Weekly News

Increasing flight duration - The current average drone flight time is about 15 minutes . One of the challenge goals is to create a power system that can sustain a drone for **90 minutes**.

Payload - In addition to water and medical supplies, drones must have the ability to deliver communication devices that are connected to a dedicated network. Challenge drones must deliver a minimum **10-pound payload**.

Challenge entry - The timeline and official rules are available on the [National Institute of Standards Challenge site](#), and teams interested in joining the challenge can sign up through the [contestant portal](#). The window for the first round of applications, which include presenting a concept paper, ends on April 30. Twenty teams will be selected from that round, with **ten receiving \$10,000**.

ELDib also suggests that teams consult with local first responders. “Their insights can add the elements that lead to a winning entry.” https://uasweekly.com/2020/04/09/emergency-responders-seek-the-last-drone-standing/?utm_source=rss&utm_medium=rss&utm_campaign=emergency-responders-seek-the-last-drone-standing&utm_term=2020-04-10

12Apr20

Are Drones The Next Big Thing In Community Policing? Rita Cook April 4, 2020



DeSoto PD drone images above the COVID-19 testing center at Ellis Davis Field House

DESOTO, TX – According to [DeSoto Police Chief](#) Joe Costa, “Drones are **the future of policing** and they give us a birds-eye view of everything on the scene before our officers arrive.”

The Department currently owns four Unmanned Aircraft Systems and has access to five. Of the UASs DeSoto owns, one of the UASs is a commercial public safety UAS. It allows the police department to use advanced technology in a variety of public safety situations. Detective Pete Schulte, J.D., Criminal Investigations Division said “The commercial public safety UASs, with the advanced technology, cost approximately \$25,000 each. The smaller UASs cost around \$2,500 or less.”

Most recently the Department’s drone was used to monitor the COVID-19 testing site at Ellis Davis Field House. Other success stories include the Police Department’s use of the UASs for a variety of public safety applications such as:



UAS and SmallSat Weekly News

- Air support for the department's tactical unit, providing real time video imagery to the special response unit during their deployments.
- The ability to follow suspects who have run from officers using the aerial video footage to locate and apprehend fleeing suspects
- The ability to document crime scenes and major motor vehicle accident scenes to provide much more detail to the District Attorney's Office and other groups.
- Ability to search for and locate missing persons
- With authority provided by search warrant, the ability to use UASs to conduct surveillance of suspects involved in criminal activity.

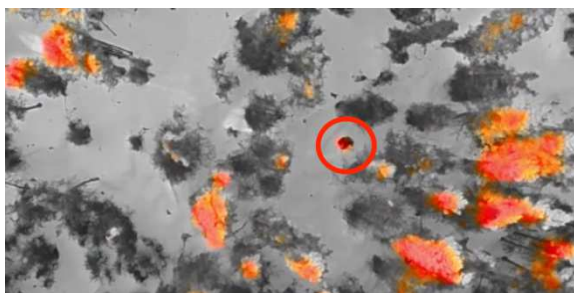
<https://www.focusdailynews.com/the-next-big-thing-desoto-police-drones/>

Police drone rescues lost hiker in Alaska Sean Captain Apr. 6th 2020



On Saturday, March 28, the Anchorage Police Department received a call from a woman who had lost her way while hiking off-trail. The wind covered over the woman's footprints, so she couldn't retrace her steps. Fortunately, she still had cellphone reception and was able to call the police and describe her general location.

While one police team set out on foot to find her, another officer sent the department's drone to survey the area. The drone was equipped with both visible light and infrared cameras and was able to spot the hiker within **15 minutes** of flying.



The hiker stands out as a bright spot in this **infrared** image. The police drone also had a **loudspeaker**, which police used to alert the hiker that they had spotted her and that help was on the way. Using coordinates reported back from the drone, the ground crew was able to reach the woman quickly and escort her back to safety.

Perhaps the ground crew alone would have eventually found the woman, or perhaps not. And even if they had, the search probably would have taken much longer, increasing the risk of frostbite or other injury. Here's a case where a small investment in technology may have made



UAS and SmallSat Weekly News

the difference between life and death. <https://dronedj.com/2020/04/06/police-drone-rescues-lost-hiker-in-alaska/>

13Apr20

US regulations, infrastructure hold down cargo delivery by drone Chris Gillis April 10, 2020



Frost & Sullivan forecasts that the number of deployed drones between 2019 and 2023 will increase to **2.44 million**, but only about **100,000 will be used for cargo** delivery.

Drone applications have rapidly proliferated across industries, but their use for package deliveries is expected to remain largely grounded by regulatory and infrastructural hurdles during the next few years. The company forecasts that the number of deployed drones will increase from 2.44 million in 2019 to 2.91 million in 2023.

Drones have proved themselves safe and effective in myriad applications, such as building, power line and wind turbine inspections; mapping and navigation; and crop spraying.

Since Amazon first began developing drones in 2013 for consumer deliveries, a multitude of companies, including UPS and FedEx, have stepped forward with their own plans for the technology. Blades estimates that between 2019 and 2023, about 100,000 drones will be in use for cargo delivery applications and they will be operated by firms providing niche services. <https://www.freightwaves.com/news/us-regulations-infrastructure-hold-down-cargo-delivery-by-drone>

ANSI Pilots Drone Standards Guide Jason Reagan April 11, 2020



Last week, the [American National Standards Institute](#) released a working draft titled the *Standardization Roadmap for Unmanned Aircraft Systems (Version 2.0)*. The brainchild of the institute's [Unmanned Aircraft Systems Standardization](#)

[Collaborative](#), the document focuses on drone use in civil, commercial, and public safety applications. The collaborative includes [members](#) from drone companies like PrecisionHawk and DJI, as well as government agencies like the U.S. DOT and the Las Vegas Police Department.

“The roadmap identifies existing standards and standards in development, defines where gaps exist and recommends additional work that is needed, including a timeline for its completion and organizations that can perform the work.”



UAS and SmallSat Weekly News

The draft roadmap and related materials may be downloaded:

- [Working Draft Standardization Roadmap for Unmanned Aircraft Systems V2](#)
- [Comment Form](#)
- [Instructions for Using Comment Form](#)

Comments on the draft roadmap must be submitted by May 1.

<https://dronelife.com/2020/04/11/ansi-pilots-drone-standards-guide/>

FAA adds additional test sites under UTM Pilot Program (UPP) phase two April 13, 2020 Jenny Beechener UAS traffic management news



The US Federal Aviation Administration announced the addition of two new participants for the second phase of its unmanned aircraft Unmanned Traffic Management Pilot Program.

The FAA's NextGen Office has selected **Virginia Tech** Mid-Atlantic Aviation Partnership in Blacksburg, Va, and Griffiss International Airport in Rome, NY, as test site participants in the next phase. UPP Phase 2 will showcase capabilities and services that support high-density Unmanned Aircraft Systems operations, including remote identification services and public safety operations. Data collected from Phase 2 test activities will help inform a cross-agency UTM Implementation Plan.

UPP Phase 1 was completed in August 2019 in collaboration with NASA, FAA UAS test sites and their industry partners. The FAA Reauthorization Act of 2018 extended the objectives of the UPP to include testing Remote ID technologies and operations with increasing volumes and density to enable safe beyond-visual-line-of-sight UAS operations.

AirMap, AiRXOS, ANRA Technologies and Wing are reported to be working with the Virginia Tech Mid-Atlantic Aviation Partnership UPP2 program.

<https://www.unmannedairspace.info/latest-news-and-information/faa-adds-additional-test-sites-under-utm-pilot-program-upp-phase-two/>

Commercial drone market to reach 2.91 million units by 2023 April 10, 2020 Jenny Beechener UTM and C-UAS market analysis



Frost & Sullivan's latest market analysis, *Global Commercial UAS Market Outlook, 2020*, finds that the industry is transitioning from a nascent to a growth stage. With the **surge in demand** for commercial

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com



UAS and SmallSat Weekly News

drones by the professional segment, unit shipment is estimated to rise at a compound annual growth rate of 4.5%, reaching 2.91 million units by 2023 from 2.44 million units in 2019. By 2023, North America will remain the largest market for commercial UAS with a total of 32.3% unit demand, followed by APAC and Europe at 29.1% and 23.3%, respectively.

Advanced technologies such as artificial intelligence for both autonomous flight and data processing, as well as platforms that have unique capabilities such as long endurance flights and conducting indoor/confined spaces inspections, are key trends inflating market growth.

<https://www.unmannedairspace.info/utm-and-c-uas-market-analysis/commercial-drone-market-to-reach-2-91-million-units-by-2023-according-to-latest-report-by-frost-sullivan/>

Elbit Wins \$20M Latin American UAS Upgrade Deal April 13, 2020 Military News



[Elbit Systems Ltd.](#) announced today that it was awarded two contracts valued at a total of approximately \$20 million from Latin American customers to upgrade the capabilities of their Hermes™ 900 Unmanned Aircraft Systems. Both contracts will be performed within a 12-month period.

Under the contracts, the Company will integrate satellite communication systems and automatic takeoff and landing systems into the UAS the customers are already operating. This upgrade will advance these Medium Altitude Long Endurance UAS to the latest configuration, enabling extension of the operational range to more than **1000km** and performing the takeoff and landing **autonomously and independent** of GPS reception.

Since its debut **10 years ago**, the Hermes 900 was selected by numerous customers across four continents, performing a wide range of missions in the fields of Intelligence Surveillance Target Acquisition and Reconnaissance , homeland security and maritime search and rescue. https://uasweekly.com/2020/04/13/elbit-wins-20m-latin-american-uas-upgrade-deal/?utm_source=rss&utm_medium=rss&utm_campaign=elbit-wins-20m-latin-american-uas-upgrade-deal&utm_term=2020-04-13



UAS and SmallSat Weekly News

14Apr20

FAA Investigates Drone Flying Over Manhattan to Remind People of Social Distancing

Miriam McNabb April 13, 2020



The FAA is investigating whether or not a so-called “Drone Task Force” has violated any laws by flying over a Manhattan park and playing a recorded public service announcement.

The drone played a recorded message. Claiming to be part of the “Anti-COVID-19 Volunteer Drone Task Force” the announcement reminded people to maintain social distancing: “Please maintain a social distance of at least six feet. Please help stop the spread of this virus. Reduce the death toll and save lives. Thank you for your cooperation, we are all in this together.”

While the NYPD says that it doesn’t know about the organization and the FAA is investigating, the idea of using drones with loudspeakers attached to them to communicate during the coronavirus is one that has been adopted by many governments. Drones provide an excellent and contact free method of communication in public spaces. Drones have also been used to [spray disinfectant](#) in public spaces, [measure the temperature](#) of people in crowds, and [monitor coronavirus](#) lockdowns. The Airborne International Response Team volunteers are also training for [coronavirus response](#) scenarios. <https://dronelife.com/2020/04/13/faa-investigates-drone-flying-over-manhattan-to-remind-people-of-social-distancing/>

DJI Commits 100 Drones to U.S. Public Safety Agencies for Disaster Relief

Miriam McNabbo April 13, 2020



As of April 1, writes Romeo Durscher on the [DJI Enterprise Blog](#), “Today, we’re pleased to announce we are distributing 100 drones to 43 police, fire and public safety organizations in 22 states. This is the largest single deployment of drones to fight COVID-19 that we know of – and we look forward to seeing what our brave first responders do with them.”

DJI’s [Disaster Relief Program](#) was formed last year to allow the company to distribute drones quickly during times of natural disaster, such as fires and hurricanes. After declaring that DJI would activate the program in response to the current pandemic, the DJI team received **several hundred requests**. The agencies receiving drones will use them according to their needs – some plan to use them to disperse crowds and make public service announcements. As the drone industry tackles this latest emergency, new uses for drones will



UAS and SmallSat Weekly News

certainly emerge. <https://dronelife.com/2020/04/13/dji-commits-100-drones-to-u-s-public-safety-agencies-for-disaster-relief/>

U.S. attorney general highlights 'new threat' to security from drones David Shepardson U.S. LEGAL NEWS APRIL 13, 2020



WASHINGTON (Reuters) - U.S. Attorney General William Barr on Monday issued guidance to Justice Department agencies on the use of protective measures against drones, including the **destruction** of any that pose a threat to national security.

Barr, in a statement, said the guidelines issued Monday “will ensure that we are positioned for the future to address this new threat, and that we approach our counter-drone efforts responsibly, with full respect for the Constitution, privacy, and the safety of the national airspace.”

The guidance says the FBI, Drug Enforcement Agency, Bureau of Prisons and other Justice Department agencies can intercept communications from a threatening drone or **destroy it without prior consent**. It also details how agencies “may seek approval for the use of counter-drone technologies and request designation of facilities or assets for protection.”

<https://www.reuters.com/article/us-usa-drones/u-s-attorney-general-highlights-new-threat-to-security-from-drones-idUSKCN21V27F>

Exolaunch signs first launch agreement with SpaceX Debra Werner April 13, 2020



A SpaceX Falcon 9 rocket launches Starlink satellites from Cape Canaveral Air Force Station

SAN FRANCISCO — German launch services provider Exolaunch announced plans April 14 to send **multiple small satellites** into orbit on a SpaceX Falcon 9 rideshare mission scheduled for December.

“Participation in SpaceX’s [smallsat rideshare program](#) will allow Exolaunch to offer reliable and cost efficient rideshare options out of the United States,” Medvedeva said by email. “We’re accommodating several microsattellites below 100 kilograms and a cluster of cubesats. These are European and U.S. smallsats coming from our existing and new customers.”



UAS and SmallSat Weekly News



On the Falcon 9 flight, Exolaunch plans to demonstrate a **new multi-port adapter** for cubesats and microsattellites called Exoport. The firm will also employ its CarboNix [separation system](#) and Exopod cubesat deployer. <https://spacenews.com/exolaunch-spacex-rideshare/>

Unmanned Helicopter Integrated into Mars Perseverance Rover 13 Apr 2020 Mike Ball



As part of the final preparations leading up to the launch of the Mars 2020 Perseverance rover, NASA has completed the attachment of the unmanned Mars Helicopter, which will be **the first aircraft in history to attempt power-controlled flight on another planet.**

The helicopter, which weighs 4 pounds with propellers 4 feet (1.2 meters) in diameter, is encapsulated within a delivery system, which was attached to the rover after the successful confirmation that data and commands could be sent and received. The helicopter will be deployed two-and-a-half months after Perseverance's landing, executing a flight-test of 30 days during which it will generate its own electrical power through a solar panel located above its twin counter-rotating propellers.

The Perseverance rover is a robotic science platform weighing 2,260 pounds, designed to search Mars for signs of past microbial life, characterize the planet's climate and geology, collect samples for future return to Earth and pave the way for human exploration. It is scheduled to land on Mars' Jezero Crater on Feb. 18, 2021.

https://www.unmannedsystemstechnology.com/2020/04/unmanned-helicopter-integrated-into-mars-perseverance-rover/?utm_source=UST+eBrief&utm_campaign=fd7fbb79d2-eBrief_2020_14Apr&utm_medium=email&utm_term=0_6fc3c01e8d-fd7fbb79d2-111778317

Utility Drones Adapted for Pandemic Services 09 Apr 2020 by Mike Ball



In the wake of the COVID-19 outbreak, [Union Robotics](#) is actively promoting engagement between manufacturers of UAVs and those seeking solutions to logistical problems posed by social distancing. The outbreak has seen an increase in the awareness of the utility of drones for a wide range of applications and industries, particularly where reduction in human-to-human contact is critical.



UAS and SmallSat Weekly News

Union Robotics' flagship drone, the Meadowhawk DE, is built from dielectric material and is the result of two years' field research working with electric companies, helicopter utility pilots and UAV utility inspection contractors. With modifications, it could be turned into an ideal platform for small cargo delivery.

Ezekiel Bierschank, Union Robotics CEO, commented: "Our drones were initially developed as industrial aids for energy companies. But their basic, out-of-the-box capabilities are conducive to a wide range of uses, and we offer adaptive engineering services that can provide individualization. Our flagship model, the Meadowhawk, offers a release hook that can be utilized for delivery of items. This is a useful mechanism for transporting materials while minimizing human contact and could be valuable for a number of situations where social distancing is crucial." https://www.unmannedsystemstechnology.com/2020/04/adaptive-drone-engineering-announced-for-pandemic-services/?utm_source=UST+eBrief&utm_campaign=fd7fbb79d2-eBrief_2020_14Apr&utm_medium=email&utm_term=0_6fc3c01e8d-fd7fbb79d2-111778317

AeroVironment Bags \$2.4 Million Contract for Small Unmanned Aircraft Systems

04/14/2020 - MT Newswires



AeroVironment (AVAV) said on Tuesday that it has received a \$2.4 million contract to provide small unmanned aircraft systems and training to an "allied nation."

Delivery of the firm-fixed-price contract for Raven aircraft systems is anticipated by August, according to a statement. The company said the aircraft system is designed for "rapid deployment and high mobility" for operations requiring low-altitude intelligence and surveillance. <https://research.trading.com/research/quotes/stock-news/story.asp?key=2938-A2144634-08JINA7GBB6V6T097DABOI1VUT&lastPage=price-quote&lastSymbol=AVAV&mcsymbol=AVAV>

15Apr20

Using Drones to Monitor Social Distancing is Now a Thing – is That

Creepy? Miriam McNabb April 14, 2020



Drones equipped with loudspeaker systems are now being commonly used in the Covid-19 crisis to monitor communities for compliance to public safety orders – but some readers complain that being watched by police from the air is just plain "creepy."

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com



UAS and SmallSat Weekly News

The FAA says it is investigating a “Volunteer Drone Task Force” flying over Manhattan parks to remind people of social distancing. While that drone isn’t operated by public safety officials, the idea has been embraced in other U.S. cities and around the world. Police in Daytona Beach were the first in the U.S. to use drones to disperse crowds. Police in Savannah, Georgia will also use drones to enforce social distancing

In Massachusetts, police are considering using drones to monitor social distancing, saying that during the Covid-19 crisis, the benefits of the technology must be weighed against any privacy concerns. In Connecticut, the Hartford Courant [reports](#), police in some communities will use drone in public parks to enforce distancing. New Jersey also has announced plans to launch a drone announcement program.

Police have already adopted drones as a tool to monitor communities around the world. In Germany, [Kazakhstan](#), China, France and other countries, drones are flying near crowds and playing recorded messages. <https://dronelife.com/2020/04/14/using-drones-to-monitor-social-distancing-is-now-a-thing-is-that-creepy/>

The Coronavirus Effect: Skydio Forced to Stop Shipping Drones Miriam McNabb April 14, 2020



CA-based [Skydio](#) has been forced to stop shipping drones due to the Covid-19 “Stay at home” order in force in northern California.

Skydio drones are assembled in a factory in the U.S. Some parts are manufactured overseas, and Skydio, like other drone manufacturers, [experienced production delays](#) when the coronavirus first hit China. Now, workers at the company have been forced with the rest of the area to stay home. The Stay Home order has been mandatory since March 31, and is a legally enforceable order under California state law.

Skydio’s affordable autonomous drone has been in demand since it was announced last year. As the current crisis impacts the entire drone industry, most buyers should be willing to wait until the stay home order is lifted – and in the meantime, Skydio with other California companies is doing the best thing they can to protect their workers and communities.

<https://dronelife.com/2020/04/14/the-coronavirus-effect-skydio-forced-to-stop-shipping-drones/>



UAS and SmallSat Weekly News

Drone flight launches first-ever insulin drop April 14, 2020 Kari Oakes

Clinical Endocrinology News

After a year of planning, researchers sent a drone flight off the coast of western Ireland to the Aran Islands, delivering insulin and glucagon and retrieving a blood sample from the **first patient to receive insulin successfully by autonomous drone delivery.**

The nuts and bolts of arranging the drop and retrieval, which occurred in September 2019, were detailed by [Spyridoula Maraka, MD](#), in a press conference during the annual meeting of the Endocrine Society, which was presented online this year.

“There are multiple medical drone delivery opportunities that could be lifesaving during sentinel events such as hurricanes, earthquakes and pandemics like the one we are currently experiencing. Medications and blood samples are ideal [drone] payload cargo because of their low weight and high value.”

Drones, or unmanned aerial vehicles, are popular for recreational use and in some commercial applications – notably photography – but they are largely untapped as a medical resource, said Dr. Maraka, a collaborator on the project and an endocrinologist at the University of Arkansas for Medical Sciences, Little Rock.

<https://www.mdedge.com/endocrinology/article/220725/diabetes/drone-flight-launches-first-ever-insulin-drop>

Israeli police use drones to check in on virus patients JOSEPH KRAUSS yesterday



Ultra-Orthodox Jews pray a morning prayer at their house as synagogues are closed following the government's measures to help stop the spread of the coronavirus, in Bnei Brak, Israel. Israeli Prime Minister Benjamin Netanyahu announced Monday a complete lockdown till the end of Passover holiday to control the country's coronavirus outbreak.

JERUSALEM (AP) — The drone glides up toward a high-rise until it reaches an apartment window where a woman waves from inside, proving to police that she is self-isolating after testing positive for the coronavirus. Israeli police are deploying drones as part of efforts to stem the outbreak, allowing officers to keep a safe distance from infected people.



UAS and SmallSat Weekly News

The increasing use of such technology against civilians has raised privacy concerns and difficult questions about how far authorities can or should go to curb the pandemic.

The drone used outside the apartment complex in the Tel Aviv area was deployed by police checking in on patients who have been ordered to self-isolate. Police spokesman Micky Rosenfeld says police are using drones across the country to “find and confirm that people with the coronavirus are in isolation” in accordance with Health Ministry regulations.

<https://apnews.com/68dce1a1fc8be75618a63db16fcf2804>

Skyports and CAA to trial revolutionary BVLOS flights in shared airspace

APPLICATION DELIVERY HEADLINE NEWS TECHNOLOGY UK SAM LEWIS APRIL 15, 2020



Making BVLOS drone flights safe within shared airspace is crucial if permanent drone deliveries are to become widely accepted and available.

The Regulatory Sandbox is a program established by the UK CAA to create an environment where innovation in aviation can be explored in line with core principles of safety, security and consumer protection.

Skyports specializes in operating drone deliveries within the medical, e-commerce and logistics sectors. Its CEO Duncan Walker commented: “Using drone deliveries can create significant time and cost savings. The current COVID-19 crisis has highlighted the role that unmanned aircraft applications can play in keeping the flow of goods moving, especially medical products, limiting human contact and supplying hard-to-reach communities.

“A critical step in enabling permanent drone delivery operations is being able to operate out of sight of the remote pilot in airspace used by others. Through this partnership with the CAA, we will be trialing the integration of our unmanned aircraft in this shared airspace to demonstrate that our drone deliveries can be operated safely alongside other aircraft.”

https://www.commercialdroneprofessional.com/skyports-and-caa-to-trial-revolutionary-bvlos-flights-in-shared-airspace/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328055-Commercial+Drone+Professional+DNA+-+2020-04-15

New Acecore loudspeaker drone for coronavirus lockdown enforcement

APPLICATION EMERGENCY SERVICES NEW PRODUCTS SURVEILLANCE SAM LEWIS APRIL 15, 2020



In response to the use of drones by many governments since the coronavirus pandemic, the updated Zoe drone comes with a loudspeaker

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com



UAS and SmallSat Weekly News

and gimbal camera payload. It also boasts a 30-minute flight time even in heavy wind and rain.

Furthermore, it can be transported on the back of a truck with automatic precision take-off and landing. The 100-watt speaker can be heard a kilometer away, and at 100m altitude has a volume of 80 decibels – as loud as heavy traffic. The camera offers 10x optical zoom for detecting those flouting lockdown rules. It also has a remote-controlled electromagnetic lock on the landing gear, meaning Zoe can safely take off from and land on any prepared vehicle.

You can see a video displaying the drone's capabilities here:

https://www.commercialdroneprofessional.com/new-acecore-loudspeaker-drone-for-coronavirus-lockdown-enforcement/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328055-Commercial+Drone+Professional+DNA+-+2020-04-15

New Indoor Drone Uses UVC Lights for Disinfection of Essential Businesses April 13, 2020 News



[Digital Aerolus](#) has developed the first indoor drone with germicidal C-band ultraviolet (UVC) emitters at 265nm, creating a remote and mobile disinfection method. The Aertos 120-UVC combines drone technology with UVC emitters, allowing businesses to deploy disinfection tactics remotely without putting humans at risk.

Their drones do not require GPS or external sensors to **fly indoors**, enabling drones to operate in places other drones cannot go, including small and confined spaces.

The company launched a new drone with UVC LED emitters to mitigate the spread of pathogens. It can be used for disinfection in critical places, including:

- Healthcare facilities – patient rooms, hospital rooms and waiting areas
- Grocery stores – checkout spaces
- Airplanes and Public Transit – seats and exposed surfaces
- Business common areas – restrooms, workrooms, breakroom surface areas
- Warehouses and product areas – work surfaces, product handling and storing areas

UVC disinfection is well-understood and has been used for decades to keep pathogens out of our drinking water and off surfaces. But generally, UVC sources are large, cost-prohibitive or impractical to deploy. UVC energy cannot be directly used around humans, given that these same killing attributes of this energy also damage human DNA. The new Aertos 120-UVC allows



UAS and SmallSat Weekly News

more organizations to deploy UVC disinfecting tactics quickly.

https://uasweekly.com/2020/04/13/new-indoor-drone-uses-uv-lights-for-disinfection-of-essential-businesses/?utm_source=rss&utm_medium=rss&utm_campaign=new-indoor-drone-uses-uv-lights-for-disinfection-of-essential-businesses&utm_term=2020-04-15

16Apr20

Wing makes emergency coronavirus drone deliveries in Virginia APPLICATION

DELIVERY HEADLINE NEWS SAM LEWIS APRIL 16, 2020



Wing, owned by Google's parent company Alphabet, is being used to make deliveries of medical supplies and scarce resources such as toilet paper in Virginia during the coronavirus pandemic.

Alphabet had been testing the drone for a number of months in the area before the outbreak of COVID-19. The drones, with a one-metre wingspan, can complete round trips of as much as 12 miles, delivering packages of up to 1.3kg.

Wing decided now was the time to expand the program and has been responding to a **massive increase in demand for deliveries**. The citizens of Christiansburg, VA have been receiving products like medicine, baby food, toilet paper and pasta.

Google associate Wing first began testing in Australia in 2014, and received **approval** there a year ago. It was also the **first** commercial drone delivery operation to receive FAA approval in the US. https://www.commercialdroneprofessional.com/wing-making-emergency-coronavirus-drone-deliveries-in-virginia/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328110-Commercial+Drone+Professional+DNA+-+2020-04-16

Workhorse Group expands the HorseFly last mile delivery patent portfolio

APPLICATION BUSINESS ALEX DOUGLAS APRIL 16, 2020



Workhorse Group has expanded its patent portfolio through a recently filed provisional application, further protecting the HorseFly UAS and several of the system's key components and capabilities.

This includes its ground control station, winch deliveries and aircraft structure. It was designed to deliver 80% of most commercial package



UAS and SmallSat Weekly News

sizes, shapes and weights while carrying a five-pound payload up to 10 miles. It flies **autonomously from truck-top** operations in U.S. airspace and meets all Federal Aviation Administration flight standards.

The company's CEO, Duane Hughes, said "In the last several months we have seen significant and growing interest in our delivery drone, making the need to expand the patent portfolio even more critical. We believe this interest is a result of the COVID-19 global pandemic and the recognition that new methods of delivery are quickly becoming essential. We are hearing from many businesses that this transition is not a temporary one, and that we need to adapt to a new normal." https://www.commercialdroneprofessional.com/workhorse-group-expands-the-horsefly-last-mile-delivery-patent-portfolio/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328110-Commercial+Drone+Professional+DNA+-+2020-04-16

17Apr20

FAA Issues Regulatory Guidance on Drone Use for Coronavirus Response Efforts, Wing's Delivery Program Miriam McNabb April 16, 2020



The FAA is working to help drone service providers go to work on behalf of communities, expanding the use of medical drone delivery and other community initiatives.

Google spin-off [Wing](#) is expanding existing drone delivery programs in light of the coronavirus. The company has begun testing operations in Virginia. Now, their drone delivery program is helping consumers limit trips to the store and receive contactless delivery of supplies.

The FAA's Updated Guidance: "The FAA is enabling drone use for COVID-19 response efforts within our existing regulations and emergency procedures. Our [small unmanned aircraft rule \(Part 107\)](#) and [Certificate of Authorization](#) process allow operators to transport goods and certain medical supplies – including test kits, most prescription drugs and, under certain circumstances, blood – provided the flight complies with all provisions of the rule or authorization. The FAA also issues [special approvals](#), some in less than an hour, for flights that support emergency activities and appropriate government, health, or community initiatives. The agency's Systems Operations Support Center is available 24/7 to process emergency requests. Safety is the top consideration as we review each request."



UAS and SmallSat Weekly News

<https://dronelife.com/2020/04/16/faa-issues-regulatory-guidance-on-drone-use-for-coronavirus-response-efforts-wings-delivery-program/>

“Mapping to a drone is what calling is to a phone,” says Hammer Missions CEO

APPLICATION BUSINESS HEADLINE NEWS UK ALEX DOUGLAS APRIL 17, 2020



Varun Sarwal, Hammer Missions’ founder and CEO, addressed the question on where he sees the market evolving. He explained how mapping will always be central to many use cases.

“Mapping has become the defacto use-case for drones in the commercial drone industry. However, we believe there are lots of new use-cases yet to be discovered. Our core belief is that “mapping to a drone is what calling is to a phone”.

“Phones became popular for the calling function, but that’s not the only thing we use them for today. With time, we expect the market to see high-frequency operations as businesses optimize their data capture and processing.”

He added: “Frequent mapping will also power **a new wave of use-cases** from change analysis to real time feature detection and reporting.”

See the full report here: https://www.commercialdroneprofessional.com/exclusive-mapping-to-a-drone-is-what-calling-is-to-a-phone-says-hammer-missions/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328185-Commercial+Drone+Professional+DNA+-+2020-04-17