



UAS and SmallSat Weekly News

Contents

- 2 Transport secretary fast-tracks Southampton drone trials as part of coronavirus effort
- 2 Flytrex takes-off with drone deliveries following COVID-19 social distancing protocols
- 3 New Tethered UAV Platform Introduced for US Army UGVs
- 4 Zipline Begins Drone Delivery of Covid-19 tests in Ghana: Is the US Next?
- 4 Aeronautica SDLE and Grupo Rías Launch Micro Drone For Disinfection with Ultraviolet
- 5 Study says drones are best way to deliver COVID-19 tests
- 5 FAA Responds Quickly To COVID Drone Waiver
- 6 ULA begins stacking rocket for next launch of U.S. military spaceplane
- 7 Skydio delivers one million pieces of PPE and donates drones to first responders
- 7 WATCH: Drone and police dog team-up to apprehend fleeing driver following traffic collision
- 8 SmartCone and Clarion Drone Academy work on coronavirus indoor drone disinfection
- 8 Drone Delivery Relief Comes to North Dakota
- 9 Oklahoma University receives \$5.2 million NASA grant to study weather for drones
- 9 EHang “to start autonomous aerial vehicle operations” in Hezhou by end of 2020
- 10 UPS drones will deliver meds to huge Florida retirement community
- 10 Drone Mapping of UNESCO Archaeological Site
- 11 Could ‘Pandemic Drones’ Help Slow Coronavirus? Probably Not
- 12 Detect-and-Avoid System Tested for Pandemic Response Drone Flights
- 12 Autonomous Aerial Military Resupply Systems Demonstrated
- 13 Disinfection Drone to Fight COVID-19
- 14 Smallsat launch delays prompt push for greater standardization
- 14 The Pros and Cons of Drone Delivery [Infographic]
- 15 Drone Delivery to Ships Takes off in Singapore
- 16 Iris Automation Joins Drone Skyports To Trial BVLOS Flights In UK CAA Sandbox
- 16 OFFSET Awards Contracts to Advance Swarm Tactics for Urban Missions
- 17 SkySkopes Partners with Minot Police Bringing UAS to Successful Missing Person Search
- 18 Drone disguised as hummingbird captures butterfly swarm video
- 18 Drone light show honors Philadelphia health workers
- 19 Drone medicine delivery begins in Ireland
- 20 Rocket Lab tests Electron on new Virginia launch pad
- 20 Webinar: Delivery Drones & COVID-19 (May 7)



UAS and SmallSat Weekly News

25Apr20

Transport secretary fast-tracks Southampton drone trials as part of coronavirus effort

APPLICATION HEADLINE NEWS HEALTH ALEX DOUGLAS APRIL 24, 2020



It forms a route between St Mary's Hospital in Southampton and the Isle of Wight in a bid to ensure it is equipped to help tackle the virus. The announcement follows £28m awarded by the government earlier this year to Southampton and Portsmouth councils to carry out drone trials of this kind as part of a wider

future transport zone trial.

The move this month comes as part of an effort by the transport secretary to ensure vital routes for supplies and people are kept open through a coronavirus support package. The multimillion government support package for essential freight services includes:

- up to £17 million for critical routes between Northern Ireland and Great Britain
- up to £10.5 million for lifeline ferry and freight services to the Isle of Wight and the Scilly Isles
- further support for critical routes between Britain and the European mainland

The funding will ensure the ongoing supply of critical goods into the country during the COVID-19 pandemic, with up to 31 routes eligible for support, subject to discussions with operators.

https://www.commercialdroneprofessional.com/transport-secretary-fast-tracks-southampton-drone-trials-as-part-of-coronavirus-effort/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328516-Commercial+Drone+Professional+DNA+-+2020-04-24

Flytrex takes-off with drone deliveries following COVID-19 social distancing protocols

APPLICATION BUSINESS DELIVERY NEWS UNITED STATES ALEX DOUGLAS APRIL 24, 2020



Flytrex, in response to the COVID-19 crisis and in partnership with EASE Drones, the Grand Forks Region Economic Development Corporation and the City of Grand Forks, has launched its drone delivery service directly to backyards in Grand Forks, North Dakota.

The initiative will provide necessities such as food, medicine and other essential goods via drone to selected households observing social distancing recommendations, helping address



UAS and SmallSat Weekly News

the growing health crisis by keeping citizens in the safety of their own homes and reducing crowding and unnecessary contact at local stores.

The deliveries will be made in cooperation with the Northern Plains Unmanned Aerial System Test Site with take-offs taking place across the street from a local shopping supercenter where provisions will be purchased.

The Flytrex CEO, Yariv Bash, said: "UAVs offer safe, swift and efficient delivery of much needed goods with no risk of unnecessary human contact for consumers. We hope this initiative will alleviate hardships for as many of the people of Grand Forks as possible and help keep them safe and provided for." https://www.commercialdroneprofessional.com/flytrex-takes-off-with-drone-deliveries-following-covid-19-social-distancing-protocols/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328516-Commercial+Drone+Professional+DNA+-+2020-04-24

New Tethered UAV Platform Introduced for US Army UGVs 22 Apr 2020 Mike Ball



[Sky Sapience](#) has introduced the company's newest-generation tethered UAV platform, HoverMast-Lite. The two new models are designed to be used in conjunction with small unmanned ground vehicles participating in the U.S. Army's Robotic Combat Vehicle and Small Multi-Purpose Equipment Transport programs.

The new HM-L system maintains the capabilities of the original HoverMast product line including 100m hovering altitude, 24/7 autonomous operation, resistance to harsh weather, fiber optic communication, cyber-protection and operation in GPS-denied environments.

The unique design enables the **tethered** drone and its sensors to be deployed without interfering with the operation of the ground vehicle. The drone does not occupy the main payload bay of the vehicle, allowing it to remain available for additional equipment and sensors. It has a carrying capacity of 6kg and can be fitted with a wide variety of payloads including CCD/IR cameras, radars, lasers, cellular and mesh communication devices, hyperspectral sensors and cyber systems. Both drone and payload can be intuitively controlled and monitored from a single ruggedized Human- Machine Interface.

<https://www.unmannedsystemstechnology.com/2020/04/new-tethered-uav-platform-introduced-for-us-army->



UAS and SmallSat Weekly News

[ugvs/?utm_content=buffer5b37b&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer](https://www.axcelinnovation.com/news/ugvs/?utm_content=buffer5b37b&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer)

Zipline Begins Drone Delivery of Covid-19 tests in Ghana: Is the US Next? Harry McNabb April 24, 2020

Separately but related, [Zipline](#) has been working with the US [FAA](#) to launch U.S. operations for drone delivery including the ability to distribute test kits and PPEs via drone.



Zipline is used as a replacement for traditional ground based vehicles that they describe on their website as prone to *“break down, get stuck in traffic jams that prevent urgent response, and put human drivers at risk behind the wheel. Zipline’s drones are battery powered and fly quickly and directly to their destinations”*.



Drone delivery of covid-19 tests in Ghana will continue. “Zipline is dedicated to helping Ghana in its fight against the [Covid-19](#) pandemic,” said CEO Keller Rinaudo. “Using contactless drone delivery to transport Covid-19 test samples will allow the government to respond to the pandemic and help save lives more quickly.”

In Ghana, Zipline has started drone delivery of covid-19 tests to two of the major cities: proving the greater efficiency of drone delivery even in urban areas. Zipline’s network of distribution center gives them the capacity to make hundreds of deliveries per day anywhere across an 8,000 square mile area. Drone delivery of covid-19 tests allows health systems to target the distribution of critical and lifesaving health products on a daily basis.

<https://dronelife.com/2020/04/24/drone-delivery-of-covid-19-tests/>

Aeronautica SDLE and Grupo Rías Launch Micro Drone For Disinfection with Ultraviolet April 24, 2020 News



Given the urgency of social responsibility to overcome the damage caused by Covid-19, two Spanish companies are developing a micro drone emitting ultraviolet light to disinfect surfaces and indoor and outdoor areas. Quick and effective sterilization is essential to stop its spread worldwide, since the

virus can remain active for up to 72 hours.



UAS and SmallSat Weekly News

C-band ultraviolet light is highly effective, and applied from a micro drone, it manages to disinfect spaces in a few minutes, combating contagions and avoiding exposure to the virus from operators who would have to carry out the disinfection without the support of remote systems.

This micro drone manufactured for this purpose by Spanish engineers from Aeronautica SDLE and Grupo Rías, works with sensors that allow it to perform its function remotely inside buildings and avoid human exposure to the risk of infection. It will have 15 minutes endurance.

https://uasweekly.com/2020/04/24/aeronautica-sdle-and-grupo-rias-launch-micro-drone-for-disinfection-with-ultraviolet-uvc/?utm_source=rss&utm_medium=rss&utm_campaign=aeronautica-sdle-and-grupo-rias-launch-micro-drone-for-disinfection-with-ultraviolet-uvc&utm_term=2020-04-24

Study says drones are best way to deliver COVID-19 tests Sean Captain Apr. 24th 2020



The challenge for testing is that it can increase people's exposure as they congregate at a hospital or clinic. So researchers at Sweden's Linköping University considered another option: using drones to deliver COVID-19 tests to residents and return the samples to a medical center.

To probe the idea, the research team modeled a drone-delivered test program for a moderate-sized city. They chose Norrköping, a city of about 137,000 located southwest of Stockholm, which has one central hospital.

The team calculated the most efficient routes to take through the city, and they made some concessions to improve quality of life. Drones would operate 12 hours per day so as not to wake residents during the night. And they would fly at a leisurely 37 miles per hour.

According to the model, just 36 drones, each carrying 100 COVID-19 tests, could visit everyone in the city every four days. That's a very high rate of testing. Researchers say that even testing every resident once per month would significantly flatten the curve of coronavirus cases.

<https://dronedj.com/2020/04/24/study-says-drones-are-best-way-to-deliver-covid-19-tests/>

27Apr20

FAA Responds Quickly To COVID Drone Waiver Russ Niles April 26, 2020



COVID-19 has prompted the FAA to loosen its notoriously tight restrictions on drones flying beyond visual line of sight. DroneDJ is

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reporting that an oil and gas company has been granted a waiver to conduct remote inspection flights because of virus-related restrictions on staff activities. What's more, the FAA approved the exemption within 24 hours, suggesting a nimbleness that was previously unheard of. The waiver is contingent on the effects of virus restrictions and expires June 30, 2020, or as soon as federal or state COVID-19 control measures allow for conventional inspection methods.

BVLOS is the Holy Grail for drone operations and will be fundamental for most of the business uses envisioned. But the FAA is moving deliberately on that and everything else to do with integrating drones into the airspace. Since the regulations were enacted in 2016, the FAA has allowed 4,000 waivers, the vast majority of them for visible night operations. Just 53 have been issued for BVLOS and none of the previous waivers have been granted in such a short time.

"The question is whether this waiver was a one-off, or if the urgency of the pandemic lead to a more flexible, fast-moving approval process at the FAA," the publication wrote.

<https://www.avweb.com/aviation-news/faa-responds-quickly-to-covid-drone-waiver/>

ULA begins stacking rocket for next launch of U.S. military spaceplane April 24, 2020 Stephen Clark



United Launch Alliance technicians raised the first stage of the company's next Atlas 5 rocket onto a mobile launch platform at Cape Canaveral Thursday, kicking off the launch vehicle's build-up for a mission scheduled for liftoff May 16 with the U.S. military's X-37B spaceplane.

The X-37B spaceplane — also called the the Orbital Test Vehicle — is shaped like a mini-space shuttle. The robotic spaceship flies without a crew and can carry experiments, small satellites and other payloads inside a cargo bay the size of the bed of a pickup truck.

The mission scheduled for launch May 16 will mark the **sixth flight** of an X-37B spaceplane since 2010. The most recent X-37B mission concluded with a landing at the Kennedy Space Center on Oct. 27, wrapping up a flight that lasted more than two years.

The ability to test new systems in space and return them to Earth is **unique** to the X-37B program. The spaceplane measures around 29 feet long and has a wing span of nearly 15 feet.

<https://spaceflightnow.com/2020/04/24/ula-begins-stacking-rocket-for-next-launch-of-u-s-military-spaceplane/>



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Skydio delivers one million pieces of PPE and donates drones to first responders

APPLICATION EMERGENCY SERVICES MANUFACTURER NEWS UNITED STATES SAM LEWIS APRIL 27, 2020



The Skydio Emergency Response Program (ERP) will see dozens of Skydio 2 drones and associated equipment donated to public safety agencies across the US. Skydio's in-house experts will also provide training and support **at no cost** to participating agencies.

Skydio had planned to release the ERP to assist with disaster relief later this year, but decided to make the program available immediately to meet the needs of public safety agencies facing an unprecedented pandemic.

The drones in question are designed enhance safety by giving fire and police services close-up awareness of a situation before they enter it. Skydio also has delivered to healthcare workers over one million pieces of PPE, sourced and secured by Frontline Support, a nonprofit started and staffed by Silicon Valley volunteers.

Fritz Reber, Skydio's head of public safety integration, said "We know the value that drones provide to public safety. Although fully hand-flown drones are helpful, drones with autonomy features allow officers to fly without fear of crashing into objects while enhancing situational awareness." https://www.commercialdroneprofessional.com/skydio-delivers-one-million-pieces-of-ppe-and-donates-drones-to-first-responders/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328583-Commercial+Drone+Professional+DNA+-+2020-04-27

WATCH: Drone and police dog team-up to apprehend fleeing driver following traffic collision APPLICATIONEMERGENCY SERVICES ALEX DOUGLAS APRIL 27, 2020



Last night, the suspect had fled from the scene of a road traffic collision and hid in a garden in Heighington near Washingborough. Footage shows the drone identifying the suspect's heat source, allowing the drone team to guide in the police dog Boris.

Now in custody for driving offences including a positive breath test, Lincolnshire Police took to Twitter to share the good work.

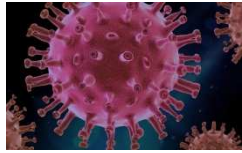
See the drone footage [here](https://www.commercialdroneprofessional.com/watch-drone-and-police-dog-boris-team-up-to-apprehend-fleeing-driver-following-traffic-collision): <https://www.commercialdroneprofessional.com/watch-drone-and-police-dog-boris-team-up-to-apprehend-fleeing-driver-following-traffic-collision>



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[collision/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328583-Commercial+Drone+Professional+DNA+-+2020-04-27](https://www.commercialdroneprofessional.com/smartcone-and-clarion-drone-academy-work-on-coronavirus-indoor-drone-disinfection/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328583-Commercial+Drone+Professional+DNA+-+2020-04-27)

SmartCone and Clarion Drone Academy work on coronavirus indoor drone disinfection APPLICATION HEALTH SAM LEWIS APRIL 27, 2020



The companies claim their solution will vastly speed up the process of disinfecting factories, offices and tech parks compared to more traditional methods. SmartCone will set up safe takeoff and landing zones, and LiDAR trip wires will alert the team if anyone enters the operational areas.

SmartCone, founded in 2011, has offices in **Ontario and California** and is a data sensory company that commercializes new technologies powering sensors, cognitive edge computing, sensor fusion and artificial intelligence. Clarion has worked in the aviation industry for over four decades, specializing in aircraft avionics and remotely piloted aircraft systems.

https://www.commercialdroneprofessional.com/smartcone-and-clarion-drone-academy-work-on-coronavirus-indoor-drone-disinfection/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-328583-Commercial+Drone+Professional+DNA+-+2020-04-27

Drone Delivery Relief Comes to North Dakota Jason Reagan April 24, 2020



Drone delivery relief is coming to a North Dakota city to promote social distancing. Israeli UAS startup [Flytrex](#) is partnering with [EASE Drones](#), the [Grand Forks Region Economic Development Corporation](#) and the [City of Grand Forks](#) to deliver food, medicine and other essential goods to residents' backyards.

The program operates under the [Northern Plains Unmanned Aerial System Test Site](#). During the testing phase, select households can opt into the drone delivery relief service.

“In this time of crisis and social distancing, drones provide the ideal solution to bolster delivery capacity while keeping citizens safe at home,” Flytrex CEO Yariv Bash said. “UAVs offer safe, swift and efficient delivery of much-needed goods with no risk of unnecessary human contact for consumers. We hope this initiative will alleviate hardships for as many of the people of Grand Forks as possible and help keep them safe and provided for.”

<https://dronelife.com/2020/04/24/drone-delivery-relief-comes-to-north-dakota/>



UAS and SmallSat Weekly News

Oklahoma University receives \$5.2 million NASA grant to study weather for drones

April 24, 2020 Jenny Beechener UAS traffic management news



NASA has awarded a team of Oklahoma State University researchers \$5.2 million over the next four years to study low-level wind and turbulence forecasting. The research aims to improve the safe operation of drones in both urban and rural environments, particularly in the field of air mobility that could one day include autonomous transport of people and cargo.

NASA's University Leadership Initiative Award totals **\$32.8 million** and will also go to teams at Stanford University, the University of Delaware, North Carolina A&T State University and the University of South Carolina.

"Each of these teams is working on important problems that definitely will help break down barriers in ways that will benefit the U.S. aviation industry," said John Cavolowsky, director of NASA's Transformative Aeronautics Concepts Program in Washington, D.C.

<https://www.unmannedairspace.info/latest-news-and-information/oklahoma-university-receives-usd5-2-million-nasa-grant-to-study-weather-for-drones/>

EHang "to start autonomous aerial vehicle operations" in Hezhou by end of 2020

April 23, 2020 Philip Butterworth-Hayes Urban air mobility



EHang Holdings Limited has announced its intention to build the world's first autonomous aerial vehicle (AAV) hub in the City of Hezhou in Guangxi Province, China, to be completed and operational by around the end of 2020.

"The plan includes the delivery of 20 units of the EHang 216, the Company's two-seat passenger-grade AAV, which will be deployed for aerial sightseeing. The E-port terminal building will be three stories covering 2,500 square meters. Architectural features include a first-floor reception hall, second floor passenger waiting area, and a third-floor departure/arrival zone. Four landing pads will be located on the roof-top, which can accommodate the landing/take-off of four AAVs simultaneously.

"Hezhou is a beautiful city with rich tourism resources, and we are excited to enhance their appeal with our AAVs. As we progress, we intend to create more commercial applications for EHang AAVs, such as aerial sightseeing that can uniquely merge modern culture and tourism.



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For more information - <https://www.ehang.com/news/638.html>
<https://www.unmannedairspace.info/urban-air-mobility/ehang-to-start-autonomous-aerial-vehicle-operations-in-hezhou-by-end-of-2020/>

UPS drones will deliver meds to huge Florida retirement community Sean Captain

Apr. 27th 2020



Beginning May 4, UPS' Flight Forward division will commence a limited drone delivery program ferrying time or temperature-sensitive medications from a single CVS pharmacy to The Villages, Orlando. The deliveries will initially go to a central drop-off point at The Villages. From there, a Flight Forward employee will drive them to individual homes via golf cart.

In the long run, it would be multiple CVS stores around the community flying directly to the home and dropping the prescriptions. The drones would lower packages to the recipients via winch and never have to touch down. The purpose is to further limit person-to-person contact and preserve social distancing during the COVID-19 pandemic.

Through a partnership with drone maker [Matternet](#), Flight Forward has been one of the leaders in the fledgling drone-delivery business in the US. The partnership recently [received FAA certification](#) allowing UPS to run a drone-based cargo airline. The UPS drone delivery project at The Villages is Flight Forward's **first direct-to-consumer service**. Its other operations have been in partnership with medical institutions. <https://dronedj.com/2020/04/27/ups-drones-deliver-meds-retirement-community-florida/>

28Apr20

Drone Mapping of UNESCO Archaeological Site Harry McNabb April 28, 2020



The drone mapping company [SimActive](#) recently announced that it is involved in the mapping of a UNESCO Archaeological site of Halin in Myanmar, Burma.

The goal of the imagery and data analysis is to find new features that had been previously overlooked, as well as to assess the state of the known ones over time. These include monumental walls, dams and digging canals, many of which are still visible in the landscape. The



UAS and SmallSat Weekly News

resulting geospatial data captured by drone checks to ensure modern constructions or farming are not causing damage to the ancient structures.

“Our collaboration with SimActive is allowing us to produce highly accurate maps of an historic site that is more than 2,000 years old,” said Kasper Hanus, research fellow at The Institute of Mediterranean and Oriental Cultures of the Polish Academy of Sciences.

Aerial data has become a key tool for archeologists. As drones provide a more affordable and accessible way to provide data, more accurate maps are being produced of ancient sites. This data provides government agencies and researchers with a common understanding of the site, so they can be better preserved. <https://dronelife.com/2020/04/28/drone-mapping-of-unesco-archaeological-site/>

Could ‘Pandemic Drones’ Help Slow Coronavirus? Probably Not Peter Lane Taylor
ForbesLife

The name probably killed it before it even got off the ground. On April 22, the Westport, CT, Police Department announced that it had commenced testing on “pandemic drones” to enforce social distancing as well as monitor the spread of the coronavirus.



Within hours, the Connecticut ACLU pounced, citing secrecy and surveillance concerns posed by “privacy-invading companies using COVID-19 as a chance to market their products and create future business opportunities.”

Canadian-based [Draganfly](#), claims its pandemic drones can monitor people’s temperatures from up to 190’ away through infrared thermography, as well as detect sneezing, coughing, heart and breathing rates, and “infectious conditions”.

Compared with putting officers at risk to enforce stay-at-home orders, Draganfly’s proposition undoubtedly sounded attractive. But Westport knew the blowback was inevitable. [In its original Facebook](#) post announcing the program, the Police Department stressed that the drones wouldn’t monitor residents’ private yards or employ facial recognition technology, and that all of the data captured would be “anonymized.” The program never had a chance. Westport officials had difficulty explaining how the drones would *actually* help to contain the virus, and Draganfly’s press release was packed with phrases like “specialized sensors” and “computer vision systems” guaranteed to make any Constitutional American leery.



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Twenty-four hours later, on April 23, Westport [canned the program](#) entirely. For the emergent drone industry, however, the fact that it got as far as it did was a **hopeful sign** that unmanned aerial vehicles might actually be one step closer to mainstream.

<https://www.forbes.com/sites/petertaylor/2020/04/25/could-pandemic-drones-help-slow-coronavirus-probably-not-but-covid-19-is-a-boom-for-business/#18bbca8762a4>

Detect-and-Avoid System Tested for Pandemic Response Drone Flights 26 Apr 2020

Mike Ball



[Vigilant Aerospace](#) has provided its FlightHorizon drone detect-and-avoid and airspace management system for a demonstration flight performed by Oklahoma State University with a specially modified medical supply delivery UAS . OSU's new drone is designed to deliver medical supplies and testing kits.

The system provides air traffic monitoring and safety features required by the FAA for authorization to perform beyond visual line-of-sight drone operations. It helps unmanned aircraft **automatically** maintain safe distances from manned aircraft by accepting data from multiple sensors, tracking air traffic and providing drone pilots or autopilots with avoidance commands when a conflict is predicted.

The flight, which was carried out by OSU's Unmanned Systems Research Institute, demonstrated the ability of FlightHorizon to track the drone and all surrounding air traffic in real time to maintain situational awareness and predict potential conflicts. The drone used for the demonstration was a Foxtech Nimbus VTOL V2 modified to carry a medical supply payload delivery container from MaxQ. The system was designed to deliver items such as virus testing kits, biological samples, blood and other items requiring temperature control.

https://www.unmannedsystemstechnology.com/2020/04/detect-and-avoid-system-tested-for-pandemic-response-drone-flights/?utm_source=UST+eBrief&utm_campaign=1eebc553ef-eBrief_2020_28Apr&utm_medium=email&utm_term=0_6fc3c01e8d-1eebc553ef-119747501

Autonomous Aerial Military Resupply Systems Demonstrated 28 Apr 2020 by Mike

Ball



[Near Earth Autonomy](#) has developed UAS-based contingency management systems for the U.S. Army and Marines as part of a Joint Demonstration. This improved logistics capability is designed to



UAS and SmallSat Weekly News

deliver water, food, fuel, munitions and medical supplies with greater speed and flexibility while also reducing risk and cost.

Army soldiers and Marines took part in an operational demonstration at Fort AP Hill, Virginia, to prove the technology which includes obstacle avoidance for safe flight and landing, enabling reliable cargo delivery in dynamic environments. A total of **64 resupply missions** were safely executed as part of the demonstration.

American defense leadership is actively exploring innovative new technologies that will support ground convoys and manned aircraft that are currently at risk of attack when carrying out their missions to deliver vital cargo to warfighters. The U.S. military plans to continue collaborating with Near Earth Autonomy to expand their capabilities in this field.

https://www.unmannedsystemstechnology.com/2020/04/autonomous-aerial-military-resupply-systems-demonstrated/?utm_source=UST+eBrief&utm_campaign=1eebc553ef-eBrief_2020_28Apr&utm_medium=email&utm_term=0_6fc3c01e8d-1eebc553ef-111778317

Disinfection Drone to Fight COVID-19 April 27, 2020 News



[SmartCone Technologies, Inc.](#) and [Clarion Drone Academy Inc.](#), are teaming up to supply safe rapid deployment of drones for indoor disinfection. SmartCone will set up safe zones for take-off and landing to include LiDAR tripwires that will notify both the intruder and Clarion operators if anyone is entering the operational zone. Further development is underway for a semi-autonomous deployment by integrating SmartCone Constellation, a high accuracy indoor positioning system (IPS). Our IPS is a network of devices for location tracking inside buildings where GPS lacks precision or fails. By enabling connectivity with LTE or Wi-Fi, authorized workers can visually track where and when disinfection has occurred, giving peace of mind.

From portable temporary set ups to permanent installations for ongoing service, we have options for everyone. We are proud to offer this rapid disinfecting solution that does not put any additional people in harm's way as part of our closed loop "[Return to Work](#)" solution. Trials will take place in May in Ottawa Valley, Canada. Health and safety officers will be in attendance to validate disinfection coverage range & accuracy.

https://uasweekly.com/2020/04/27/disinfection-drone-to-fight-covid-19-from-smartcone-technologies-and-clarion-drone-academy/?utm_source=rss&utm_medium=rss&utm_campaign=disinfection-drone-to-fight-covid-19-from-smartcone-technologies-and-clarion-drone-academy&utm_term=2020-04-28



UAS and SmallSat Weekly News

29Apr20

Smallsat launch delays prompt push for greater standardization Jeff Foust April 28, 2020



WASHINGTON — A study that found that every small satellite launched commercially in the last five years suffered delays is evidence of the need of greater standardization in payload accommodations so that smallsats can easily switch vehicles, one company argues.

The study, [conducted by Bryce Space and Technology and released April 22](#), found that **all 1,078 smallsats** — defined as weighing less than 600 kilograms — launched commercially in the last five years **suffered delays** ranging from days to years for a variety of reasons. The median launch delay for the smallsats included in the study is 128 days. A little more than 150 smallsats had delays of no more than two weeks, but a similar number suffered delays of at least one and a half years.

The survey found that 40% of delays were due to payloads, including those of the primary payload on launches where smallsats were flying as secondary payloads. Issues related to launch vehicles accounted for 34% of delays, but most of those were caused by launch vehicle development and manufacturing delays. Most of the rest of the delays were due to administrative or programmatic issues, or changes in the International Space Station manifest for those smallsats being launched from the station.

He argued that the fact that many delays are caused by primary payload or launch vehicles issues underscores the importance of having more standardized approaches to accommodating smallsats, so that they can be easily remanifested from one launch vehicle to another.

<https://spacenews.com/smallsat-launch-delays-prompt-push-for-greater-standardization/>

The Pros and Cons of Drone Delivery [Infographic] Miriam McNabb April 29, 2020



Like most innovative technology, there is both positive and negative debate around the subject of delivery drones. While the devices do make delivery more efficient and eco-friendly, they also add bring more noise and privacy risks to consumers' neighborhoods.



UAS and SmallSat Weekly News

Pros

- **Clean delivery:** Drones are more eco-friendly than traditional delivery methods, as they take pollutants out of the air that typically come from large trucks.
- **Improves speeds:** Amazon's fleet of octocopters will be able to fly up to 15 miles and deliver packages to customers in less than 30 minutes.
- **Safer transit:** Delivery drones will also take more delivery drivers off the road.

Cons

- **Noise pollution:** Delivery drones don't operate silently and will add noise pollution to areas where they fly.
- **High cost:** Unmanned aerial delivery comes with higher costs to maintain fleets of drones.
- **Privacy risks:** . A recent survey by The Zebra revealed that 88% of Americans don't think [delivery drones](#) should be able to record on their property.

Check out this visual from [The Zebra](#) below to discover more about delivery drones and how they could work! <https://dronelife.com/2020/04/29/the-pros-and-cons-of-drone-delivery-infographic/>

Drone Delivery to Ships Takes off in Singapore Harry McNabb April 29, 2020



Start-up [F-drones](#) recently obtained the **first** ever authorization in Singapore for flight beyond the pilot's visual line of sight (**BVLOS**) to make drone deliveries to ships. The company also completed their [first paid drone delivery to a vessel](#).

This type of drone delivery adds to the growing concepts of [Urban Air Mobility](#) where pollution and congestion are causing civil authorities to look to non-traditional methods for the delivery of goods.

F-drones completed the first commercial BVLOS drone delivery in Singapore on April 19, 2020. The drone delivered 2 kg of vitamins over 2.7 km in 7 minutes, to a ship managed by Eastern Pacific Shipping which is one of the world's largest privately-owned ship managers, F-drones' first paying customer. <https://dronelife.com/2020/04/29/drone-delivery-to-ships/>



UAS and SmallSat Weekly News

Iris Automation Joins Drone Skyports To Trial BVLOS Flights In UK CAA Sandbox

April 29, 2020 News



Drone delivery service provider Skyports has announced today that it has been accepted into the UK Civil Aviation Authority’s Regulatory Sandbox to trial beyond visual line of sight flights in non-segregated airspace. It is a program established by the UK CAA to create an environment where innovation can be explored in line with core principles of safety, security and consumer protection.

Skyports, which operates drone deliveries within the medical, e-commerce and logistics sectors, and the UK CAA will explore how regulatory approvals can be granted for drones controlled out-of-sight of the remote pilot within airspace shared with other aircraft.

Duncan Walker, Chief Executive Officer at Skyports, said: “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 UK Civil Aviation Authority, we will be trialing the integration of our unmanned aircraft in shared airspace to demonstrate that our drone deliveries can be operated safely alongside other aircraft.” https://uasweekly.com/2020/04/29/iris-automation-joins-drone-skyports-to-trial-bvlos-flights-in-uk-caa-sandbox/?utm_source=rss&utm_medium=rss&utm_campaign=iris-automation-joins-drone-skyports-to-trial-bvlos-flights-in-uk-caa-sandbox&utm_term=2020-04-29

OFFSET Awards Contracts to Advance Swarm Tactics for Urban Missions April 29, 2020 Military News



DARPA has awarded contracts to nine performers to begin work on the fifth swarm sprint for the agency’s [OFFensive Swarm-Enabled Tactics \(OFFSET\) program](#). The program envisions swarms of up to **250 collaborative autonomous systems** providing insights to ground troops as they operate in dense urban environments.

OFFSET has five key areas – swarm tactics, swarm autonomy, human-swarm teaming, virtual environment and physical testbed. The swarm sprints aim to encourage rapid innovation and continuous incorporation of the very latest technologies.



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The [fifth swarm sprint](#) consists of two topic areas: Physical Testbed and Swarm Tactics. Swarm Sprinters in either topic will integrate their technologies into one or both of the OFFSET swarm systems architectures, and will further develop and demonstrate their solutions in relevant field tests, planned for December 2020. https://uasweekly.com/2020/04/29/offset-awards-contracts-to-advance-swarm-tactics-for-urban-missions/?utm_source=rss&utm_medium=rss&utm_campaign=offset-awards-contracts-to-advance-swarm-tactics-for-urban-missions&utm_term=2020-04-29

SkySkopes Partners with Minot Police Bringing UAS to Successful Missing Person Search April 29, 2020 News



A missing child has been found safely in Minot, North Dakota today, in no small part due to the swift actions of the partnership between the Minot Police Department, the Minot Fire Department, SkySkopes' UAS teams, and others.

After SkySkopes received the call from the Police of the City of Minot, they had teams on station within 20 minutes of the call and made the police aware of the adjustments they made as precautions due to the coronavirus. The hours-long search was successful, the crews have debriefed at safe distances and areport is being conducted remotely. SkySkopes crews had all of the normal UAS PPE, in addition to PPE that meets and exceeds the WHO, North Dakota Department of Health and CDC Guidelines.

“The child was found safely. Matt Dunlevy, President and CEO of SkySkopes, said “This was an emergency within an emergency, with another UAS response taking place simultaneously in Grand Forks to fight the flood. We have never seen **a triple emergency using UAS** before.”

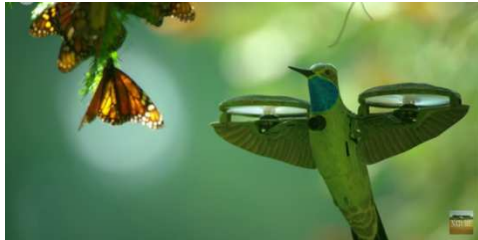
“Some of the drone imagery taken during the search clearly demonstrates the usefulness of UAS in search-and-rescue missions,” said Sebastian Gomez, SkySkopes' Minot Operations Manager and Mission Commander for the quick reaction efforts.

https://uasweekly.com/2020/04/29/skyskopes-partners-with-minot-police-bringing-uas-to-successful-missing-person-search/?utm_source=rss&utm_medium=rss&utm_campaign=skyskopes-partners-with-minot-police-bringing-uas-to-successful-missing-person-search&utm_term=2020-04-29



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Drone disguised as hummingbird captures butterfly swarm video [Sean Captain](#) Apr. 29th 2020



The PBS Nature series [Spy in the Wild](#) is capturing some amazing closeups of wildlife as you've never seen before. For an upcoming episode, it used a drone disguised as a hummingbird to film **a 500-million butterfly swarm** in Mexico.

The filmmakers chose a hummingbird as their drone "spy" because it feeds in these groves and would not appear as a harmful intruder to the butterflies. Footage even shows butterflies landing safely on the wings—something they couldn't do with a real hummingbird.

The drone provides a birds-eye view from within the maelstrom, with a torrent of flapping wings all around it. The drone cam also captures amazing close-ups that clearly show individuals in flight. A slow-motion clip illustrates the complex wing flapping that hurls the butterfly's body up and down with each stroke.

It's some of the most **stunning and unexpected** [drone video](#) you will see. I'm pretty excited for this episode of Spy in the Wild after just this three-minute clip. The episode will air in its entirety on May 6. <https://dronedj.com/2020/04/29/hummingbird-drone-butterflies/>

30Apr20

Drone light show honors Philadelphia health workers [Sean Captain](#) Apr. 30th 2020



The skies over Philadelphia lit up earlier this week in an aerial show composed of about 140 brightly lit drones. The drone light show was a **tribute to health workers** on the frontline of the COVID-19 pandemic.

The drones flew up to 400 feet high facing the Hospital of the University of Pennsylvania and The Children's Hospital of Pennsylvania, [reports AV Magazine](#). They formed a variety of images related to the health effort such as hand washing and a flattening curve — representing the effort to slow the infection rate of the illness.

The show was the latest in a global campaign called #LightItBlue that uses lighting effects to pay tribute to healthcare workers. #LightItBlue began in the UK in March but quickly spread to the



UAS and SmallSat Weekly News

US, where buildings, bridges, and other landmarks have been illuminated to salute healthcare workers. The [drone light show](#) also tied into a local tribute effort called #PhillyShinesBlue. (A similar drone light show honoring health workers [took place in China](#) earlier this month.)

The show was organized by Verge Aero, a local company that specializes in drone light shows. “This was an opportunity for us to donate our resources and expertise to stand in solidarity with these brave heroes,” said company CEO Nils Thorjussen. The company makes a software platform that it says allows clients to design drone light shows in just a few hours, without the need for custom programming. <https://dronedj.com/2020/04/30/drone-light-show-philadelphia-health-workers/#more-27952>

Drone medicine delivery begins in Ireland Sean Captain Apr. 30th 2020



Ireland’s Manna Aero had a plan—to deliver fast food by drone. And it was about to start a trial for college students in March when the coronavirus hit—one of so many plans changed by the pandemic. Now it’s pivoted to a new role as a delivery service for pharmacies.

This week the startup began delivery of prescriptions to senior citizens’ homes in a trial program designed for **the COVID-19 social-distancing era**. It comes on the heels of [UPS announcing a delivery service](#) to seniors in a retirement community in Florida. But unlike that program, which drops prescriptions off at a central location, [Manna Aero](#) flies right to the individual’s home.

With physicians writing prescriptions during video consults, the entire operation is **contact-free**. In addition to medication, the service can also deliver essentials like bread and milk to people who should not be going outside due to their vulnerability to the coronavirus. The copter-style drone, made in Wales, can carry up to 9 pounds of cargo. Manna says it can handle up to **100 deliveries a day**.

The company emphasizes the safety of its craft. Although they are autonomous, a remote pilot is on hand at all times to take over, says the company. Each drone is even equipped with a parachute, should there be a complete failure of the system.

<https://dronedj.com/2020/04/30/drone-medicine-delivery-begins-in-ireland/#more-27993>



UAS and SmallSat Weekly News

1May20

Rocket Lab tests Electron on new Virginia launch pad Jeff Foust April 30, 2020



WASHINGTON — Rocket Lab has tested an Electron rocket on its new launch pad in Virginia ahead of a launch that has been pushed back to later this year.

In an April 29 statement, the company said it rolled out an Electron rocket to the pad at Launch Complex 2 at the Mid-Atlantic Regional Spaceport on Wallops Island, Virginia, recently for a series of tests to check out interfaces between the pad and the vehicle. The tests concluded with a brief static-fire test of the Electron's nine first-stage engines. The company said the rocket and ground systems **"performed seamlessly"** during those tests.

That rocket will be used for the launch of Monolith, an **Air Force Research Lab smallsat** intended to demonstrate the ability to deploy a large-aperture payload for space weather monitoring. The company announced in December that payload would be the **first** to launch from the new pad, which at the time was scheduled for the second quarter of 2020. That launch has slipped, though. Rocket Lab said in the statement that the launch is now scheduled for no earlier than the third quarter of this year. <https://spacenews.com/rocket-lab-tests-electron-on-new-virginia-launch-pad/>

Webinar: Delivery Drones & COVID-19 (May 7)

Dear All,

I hope this finds you as well as can be during a pandemic.

To RSVP for the webinar below, [please follow this link](#), thank you.

My very best, Patrick (WeRobotics/UAViators)

Visit Humanitarian UAV Network at: http://uaviators.org/?xg_source=msg_mes_network



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@Webinar

🕒 Thursday, May 7, 4pm-5pm Spain



Delivery Drones and COVID-19

Policy Series on COVID-19 Response

Speaker: Dr. Patrick P. Meier

- > *How exactly are delivery drones being used to tackle the coronavirus?*
- > *Which use-cases are being served and what drones are being used?*
- > *What are the best practices from the medical cargo drone space?*

For more information, see werobotics.org/covid