



UAS and SmallSat Weekly News

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28Mar20

Drone Taxi: Lilium Soars with \$240m Funding Round Jason Reagan March 26, 2020



The internal funding round is led by Tencent, with Atomico, Freigeist and LGT participating. It will fuel Lilium's development and production of the [Lilium Jet](#), an all-electric, VTOL passenger drone .

Lilium plans to operate regional air mobility service as early as 2025, having recently completed first-stage flight testing in Germany. The fresh cash injection brings total funding to \$340 million. The **36-engine** jet consumes around **90 percent less energy** than other drone-style aircraft. That translates to a range of about 186 miles with a top speed of 186 mph.



The jet features two fixed wings – a main rear wing measuring about **36 feet** across and a “canard” front wing at the front. The canard wings each sport two flaps while the main wings have four.

Three electric jet engines are mounted on each flap and can pivot and change thrust direction as the flaps move independently. The Lilium Jet lacks many of the moving parts found on other jets – **no tail, rudder, oil circuits, gearboxes or variable-pitch fan blades with only one moving part in the engines**. As the engines move together with their nacelles, they perform the function of aerodynamic control surfaces, directing and moving the thrust.

Interest in passenger drones is blossoming. On March 24, Chinese drone-taxi company [eHang](#) announced a soaring Q4, with a revenue spike of 57 percent. In October, German startup Volocopter partnered with Skyports to develop a drone-taxi [“VoloPort”](#) in Singapore. <https://dronelife.com/2020/03/26/drone-taxi-lilium-soars-with-240-funding-round/>

Counter-drone firm soars after government demand takes flight Jason Reagan March 25, 2020



The San Diego-based company has experienced a surge in global demand for Titan counter-drone system, forcing Citadel to expand manufacturing capabilities for up to **50 a month**. The company uses American suppliers with

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more than 70 percent of the components being sourced locally in Southern California. Over the past 18 months, Citadel has received orders for more than **\$17.5 million**.

Citadel deploys the [Titan C-UAS](#) globally to protect combat forces, civilians, and critical infrastructure. Titan detects drone controllers, video and Wi-Fi links for individual drones and swarms and can then neutralize the threat. <https://dronelife.com/2020/03/25/counter-drone-firm-soars-after-government-demand-takes-flight/>

First BVLOS Drone Flights Granted in Canada Using Iris Automation's Onboard Technology March 26, 2020 News



MVT Geo-solutions, in partnership with Iris Automation, has been granted the **first** Beyond-Visual-Line-of-Sight Special Flight Operations Certificate by Transport Canada using only onboard Detect-and-Avoid. The approval was granted based on the utilization of [Iris Automation's](#) DAA system, called [Casia](#), which provides commercial drones with

automated collision avoidance maneuvers.

The waiver permits flights within the Unmanned Aircraft Systems Center of Excellence's controlled airspace Remotely Piloted Aircraft System test range in Alma, Quebec. This is the first BVLOS flight at the location **leveraging only onboard DAA** for air risk mitigation, and does not require ground-based observers or radar.

BVLOS flights unlock autonomous drone use for economically beneficial commercial applications including infrastructure inspection, mining, mapping, agriculture, emergency response, and package delivery. https://uasweekly.com/2020/03/26/first-bvlos-drone-flights-granted-in-canada-using-iris-automations-onboard-detect-and-avoid-technology/?utm_source=rss&utm_medium=rss&utm_campaign=first-bvlos-drone-flights-granted-in-canada-using-iris-automations-onboard-detect-and-avoid-technology&utm_term=2020-03-27

Drone Delivery Canada Reaches Out to Healthcare Industry for Covid-19 Delivery Use Cases March 25, 2020 News

Drone Delivery Canada Corp. is reaching out to the healthcare industry, including – hospitals, seniors' homes, medical labs and related organizations for use case applications for drone delivery related to COVID-19.



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"In the news we are seeing COVID-19 related drone applications around the world, and Canada can particularly benefit from having DDC, a drone logistics leader, in its own backyard. The current situation is an ideal use-case for our proven drone logistics solution to: limit person-to-person contact; bring needed medical and pharmaceutical supplies to Aboriginal, remote, rural and suburban communities; transport blood samples to laboratories for testing and deliver other relevant supplies needed for Canada to effectively manage the current situation," said Michael Zahra, President & CEO of DDC.

The Company remains diligent and is following all recommendations from Health Canada sources as Canada deals with COVID-19. The Company's business operations remain ongoing, and it is considered an Essential Workplace based on criteria published by the Ontario Provincial Government. https://uasweekly.com/2020/03/25/drone-delivery-canada-reaches-out-to-healthcare-industry-for-covid-19-related-uas-delivery-use-cases/?utm_source=rss&utm_medium=rss&utm_campaign=drone-delivery-canada-reaches-out-to-healthcare-industry-for-covid-19-related-uas-delivery-use-cases&utm_term=2020-03-27

UAVOS & KACTS Successfully Demonstrate Remote Operation for UAS March 27, 2020 News



UAVOS in collaboration with King Abdulaziz City for Science and Technology, Saudi Arabia, has developed and demonstrated a progressive flight control system capability for the Saker MALE UAS family with no need for a ground control station at the takeoff and landing sites. The UAS can automatically land in remote runways located thousands of kilometers away where it is serviced by a crew before it takes off for an additional mission. Based on communication systems combined with precise **automated** taxiing, takeoff and landing, the flight control system is a technological leap in the remote operation concept.

Control of the flight by **two ground control stations at once** makes it more effective to manage the operational capabilities such as UAV control, real-time planning and updating of routes, updating the UAS behavior attributes and real-time receipt of mission data. In this way, the technology saves flight time and fuel, increases operational availability in the mission area and provides several options for routine and emergency landing.



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With the new capability, it can be used in challenging missions such as control of drug smuggling, illegal immigration, pollution and search & rescue operations. With an endurance that exceeds 19 hours and the ability to ascend up to 16500 feet, Saker-1B is designed with an automatic takeoff and landing capability, redundant flight control surfaces and Beyond Line-of-Sight data link systems for over-the-horizon operations.

https://uasweekly.com/2020/03/27/uavos-kacts-successfully-demonstrate-remote-operation-for-uas/?utm_source=rss&utm_medium=rss&utm_campaign=uavos-kacts-successfully-demonstrate-remote-operation-for-uas&utm_term=2020-03-27

CEO of DroneUp in Virginia Beach discusses how technology is being used during crisis MARCH 26, 2020 SYDNEY LAKE



Tom Walker, founder and CEO of DroneUp (L) and CIO Joe Fuller

Virginia Business *virtually* sat down with Tom Walker, founder and CEO of DroneUp, a Virginia Beach-based company that provides aerial data services to the commercial sector, government and pilots to get a feel for how his drone company has adapted to doing business during the coronavirus crisis.

VB: How can drones help in a public health crisis? **Walker:** One of the issues that people are talking about is how we may or may not use drones for a COVID response — whether it's things like delivering packages or using aerial infrared thermography to check for temperatures using drones. But the reality is none of this has ever been *really* tested. If we're using drones and running them for 10, 20, 30, 40, 50 hours, what will happen? How do you actually de-conflict the air space with that many drones flying?

And now the question is being asked. The state of Virginia, the Center for Innovative Technology, DroneUp and a handful of other Virginia companies are being proactive in developing and testing response capabilities not only to the current COVID-19 crisis but also testing innovative uses of drones in future emergencies that include storm and hurricanes. We're putting together a robust exercise that is going to test that. We're going to be taking packages into a safe environment. We're going to be delivering at volume. We're going to run 24 hours a day, day and night and find out what are the strengths, weaknesses, blockers and learn how we actually do it when we ever need to. https://www.virginiabusiness.com/article/an-aerial-view-of-the-drone-industrys-covid-19-response/?utm_source=newsletter&utm_medium=email&utm_campaign=daily



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Conducting Your Business Digitally



Even before COVID-19 changed the way we had to do business, we recognized a need within the industry for a facilitator that could provide the connections that so many of our businesses have come to rely on to grow, which is why [Commercial UAV News](#) built the [Buyer's Guide](#)—a robust, searchable digital space for businesses and end users to come together to find solutions, new partners or clients, and ideas.

It is a resource for the industry to help you find what you need. The guide itself is free to search and is growing daily. If you are interested in adding a listing to the guide you can [sign up online](#) or contact our team at info@commercialuavnews.com to see how we might be able to help. <https://www.commercialuavnews.com/buyers-guide?term=&searchCats=>

29Mar20

NASA expands vision for future airspace mobility INITIATIVES MAR 2020



NASA has announced that it is updating the terminology used to define Urban Air Mobility (UAM) to **Advanced Air Mobility** (AAM). The new terminology will include a more comprehensive view of the future of airspace mobility.

During the past few years the idea of using unmanned aircraft systems, or drones, and small, piloted electric-powered vehicles has really developed, and the initial attention has widely been focused on their use in the skies over dense urban landscapes.

“From this emphasis of flying UAS over larger cities, we naturally branded it Urban Air Mobility and it stuck. This was late in 2017, but it didn’t take long before we got the sense that maybe ‘urban’ wasn’t the perfect word.”

As it continues to lead discussions and host technical demonstrations with its industry partners, NASA has reached a conclusion that there is a broader interest in these capabilities. UAM-related services could benefit everyone, not just those who live in a big city.

<https://www.futuretravelexperience.com/2020/03/nasa-expands-vision-for-future-airspace-mobility/>



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The Health-Care Startup That's Fast-Tracking Drone Delivery Ira Boudway *March 26, 2020*



Zipline, a California startup founded in 2014, makes hundreds of deliveries per week to hospitals and clinics in Rwanda and Ghana. Its drones launch from catapults at six distribution centers, carrying blood, medicine, and other supplies, a few pounds at a time. Since it began service in 2016, Zipline has flown over a million miles and made more than 60,000 drops.

The company is on schedule to open a distribution center in North Carolina later this year to help Novant Health, which operates a network of clinics, health centers and hospitals, deliver medicine and supplies to rural and suburban clinics. But **as the pandemic begins to strain the U.S. medical supply chain**, Zipline is looking into ways to **deploy sooner and at wider scale**.

The company is talking with federal, city and state leaders about how it might help. Any deployment will need a go-ahead from the U.S. Zipline's North Carolina hub is part of a Federal Aviation Administration [pilot program](#) launched in 2017, to evaluate how best to integrate unmanned aircraft into U.S. airways. In March last year, UPS [began carrying](#) blood samples from clinics to testing labs at WakeMed hospital campus in Raleigh using drones made by Silicon Valley startup Matternet. Its quad-copters have made more than a 1,000 trips, carrying a few pounds at a time over about a mile. <https://www.bloomberg.com/news/articles/2020-03-25/the-health-care-startup-that-s-fast-tracking-drone-delivery>

Stuck at home? Take a tour through Disney's empty Star Wars, Pandora and space-age parks Chelsea Gohd



An aerial view of an empty Walt Disney World in Florida

Although all Disney parks worldwide are currently closed due to the [coronavirus pandemic](#), aerial images of the empty parks at Walt Disney World in Florida offer a unique opportunity to explore their world-famous attractions like never before. Up until very recently, visitors at the parks endured incredibly long wait times for rides like "Rise of the Resistance" at the new "Star Wars" land [Galaxy's Edge](#) and the beloved "Flight of Passage"



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virtual-reality ride in the Pandora land at Animal Kingdom. So, it's almost shocking to see the parks without their usual crowds and lines.

But, while the emptiness might be strange and stark at first glance, allow yourself to beam down into these images and explore the parks' hidden magic that is easy to overlook when crowds are present. Take a moment to enjoy the alien plants of Pandora, sharp views of the Millennium Falcon or an imagined future in Magic Kingdom. https://www.space.com/disney-world-galaxys-edge-pandora-tomorrowland-aerial-images-coronavirus.html?utm_source=Selligent&utm_medium=email&utm_campaign=9155&utm_content=SDC_Newsletter+&utm_term=3417707&utm_i=DR9N18RMgELxnu14gWZbnjUsFFBQp4HgCpUyAuhT2kL0UcU_snhqN1LAmv9XNpuj%2BYK1yBXWA78bl_iTdqlMhfPhXVCzfWM51%2B6061fDDD9

30Mar20

ARPAS co-ordinates national Covid-19 drone capability taskforce APPLICATION

HEADLINE NEWS UK ALEX DOUGLAS MARCH 30, 2020



The organization says it is making sure that Government departments are reminded of the expertise and capabilities of the drone community in the UK.

The release said: "Whilst we are considering several areas where drones could be used, we are particularly looking to relieve the current and future stress on resources in the Emergency Services. We are also looking at areas such as delivery of emergency food and medicine to vulnerable people, spraying of disinfectant, collection of imagery and video to help monitor various situations. It is also worth emphasizing drone operations do not involve large groups and reduce human presence directly on the ground and personal contact."

"So, in preparedness for any possible callout, this is a request to the entire drone industry to ask whether you could help fight the battle against Coronavirus. We are aware there are 1000's of Commercial Drone Operators out there, **we may need your help.**"

https://www.commercialdroneprofessional.com/arpas-co-ordinates-national-covid-19-drone-capability-taskforce/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327139-Commercial+Drone+Professional+DNA+-+2020-03-30

DJI devises digital emergency response system with new partner Rosenbauer

APPLICATION DJI EMERGENCY SERVICES NEW PRODUCTS SOFTWARE SAM LEWIS MARCH 30, 2020



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The software will combine Rosenbauer's existing operation management system with data from DJI's drone fleet management software, FlightHub.

Available to public, community fire services as well as private teams at airports, the software is compatible with tablets, mobile devices and computers back at headquarters.

It will offer fire safety maps, hazardous material data and vehicle rescue sheets, as well as additional visual and thermal data, with all information stored securely.

https://www.commercialdroneprofessional.com/dji-devises-digital-emergency-response-system-with-new-partner-rosenbauer/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327139-Commercial+Drone+Professional+DNA+-+2020-03-30

"Pandemic drone" could help detect infections in crowds David Szondy March 26, 2020



If you see a drone fly by in the future, it could be looking for evidence of [COVID-19](#). The University of South Australia and Canada-based drone technology specialist Draganfly Inc have teamed up to develop a "pandemic drone" platform that uses special sensors and computer vision to find people with infectious respiratory diseases.

One of the major problems in controlling a pandemic like the COVID-19 virus is finding out who is infected and how widespread the disease is. One way to do this is to look for people showing symptoms. However, asking the population of an entire city to queue up to have their temperatures taken is hardly practical, so a UniSA team led by Defence Chair of Sensor Systems Professor Javaan Chahl is opting for remote sensing and computer algorithms.

The detection rate isn't perfect, but it is a practical tool for seeing if a disease is present in a crowd. The new drone is capable of monitoring someone's temperature, heart rate, and respiratory rate. It can also detect sneezing and coughing. This works even in crowds, including those at offices, airports, cruise ships and aged care homes.

The technology was originally unveiled in 2017 by Chahl, Ali Al-Naji, and Asanka Perera when they demonstrated the ability to [measure heart and breathing rates](#), analyze human movements to detect coughing and sneezing at a distance of up to 33 ft using drone videos and within 165 ft from fixed cameras. Chahl says that the detection rate isn't perfect, but it is a practical tool for seeing if a disease is present in a crowd. <https://newatlas.com/drones/pandemic-drone-detect-infections-crowds-coronavirus/>



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Drone racing-League viewing figures flying high amid virus shutdown Alan Baldwin

MARCH 24, 2020

LONDON, March 24 (Reuters) - The Drone Racing League (DRL) **is taking off** in more ways than one **as the coronavirus pandemic brings most other sport to a standstill around the world.**

The New York-based robotic racing series that straddles the blurry line between real and virtual, with a global audience of millions, has seen viewing figures soar as countries have gone into lockdown. DRL founder and CEO Nicholas Horbaczewski said Chinese viewership of the 2019 season had reached around seven million — up 70% on 2018.

Horbaczewski said the DRL was also seeing changes in the U.S. audience. “Our last stream of the phase of the simulator trials we’re in, we saw a 10% increase in viewership and we saw a 30% increase in participation among people who were trying out,” he said. “People are at home, looking for things to do and still excited about sports but they just don’t have access to them right now.”

The DRL is broadcast on traditional TV channels such as NBC, Sky Sports and FOX Sports Asia as well as streamed on digital platforms Twitter, Weibo and Youku.

<https://www.reuters.com/article/health-coronavirus-droneracing/drone-racing-league-viewing-figures-flying-high-amid-virus-shutdown-idUSL4N2BG5ZL>

Drone defense against COVID-19 Jonathan Jackson Mar 27, 2020



Med-tech companies, scientists, innovators and entrepreneurs are collaborating in interesting ways to combat the virus ... and potentially change the way we live, work and play forever.

Take [JD.com](https://jd.com) for instance. JD’s autonomous delivery robot successfully delivered products to Wuhan Ninth Hospital, the designated hospital for the treatment of COVID-19 in Wuhan in a bid to eliminate cross infection.

“JD autonomous delivery robots can help reduce human-to-human contact making them an ideal solution for last-mile delivery solution in Wuhan during this unique time, protecting both our customers and our employees.” said Qi Kong, Head of Autonomous Driving at JD Logistics.

China has been quick to innovate. Shenzhen-based start-up Pudu Technology aims to reduce cross-infection by implementing **home delivery** of drugs and meals via robot. Food delivery



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service Ele.me is doing something similar by using robots to deliver meals to quarantined individuals suspected of having the virus. Delivery app [Meituan Dianping](#), has also ramped up its 'contactless delivery' options through autonomous vehicles and robots.

<https://finfeed.com/opinion/ctrl-alt-del/drone-defence-against-covid-19/>

Western Australia police to use drones to blast messages out amid coronavirus

Josh Spires Mar. 30th 2020



The drones will be at various popular locations, including beaches and parks where groups aren't following the new laws in response to the [coronavirus outbreak](#).

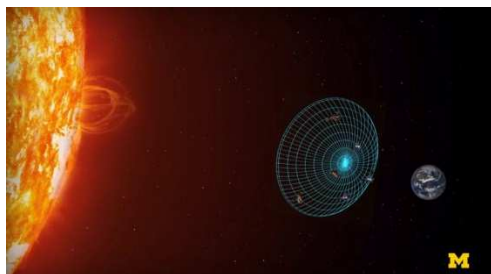
The drones will reportedly be flying around areas known to have large amounts of people not following the recent social distancing and social gathering laws such as

beaches, parks and cafe strips. They will be able to [broadcast messages](#) up to a range of one kilometer and can be deployed rapidly in areas that don't have the best police presence. The drones will also be equipped with **sirens and flashing lights** to ensure they are not missed by the public.

The drones have been brought in by Western Australia's [police force](#) to ensure the public continues to understand the severity of coronavirus and the importance of staying indoors to limit the spread. The drones will also allow police officers to better keep their distance from potential coronavirus carriers. <https://dronedj.com/2020/03/30/western-australia-police-drones-messages-coronavirus/>

31Mar20

NASA selects space science cubesat mission Jeff Foust March 30, 2020



WASHINGTON — NASA announced March 30 it will fund the development of a cluster of six cubesats that will fly in formation above geostationary orbit to study solar storms.

NASA said it selected for development the Sun Radio Interferometer Space Experiment (SunRISE) mission as a

“mission of opportunity” for its heliophysics program. The mission, with a total cost of **\$62.6 million**, will launch by July 2023.



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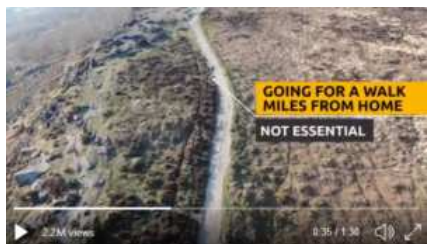
SunRISE will consist of six cubesats, each six units in size, just above geostationary orbit. Flying in a formation about ten kilometers across, they will form a virtual radio telescope to detect and pinpoint emissions from the sun associated with solar storms. Those radio waves can't be detected on Earth because of interference from the Earth's ionosphere.

Scientists believe such observations can help them better understand what solar activity can lead to major solar storms. "We can see a solar flare start and a coronal mass ejection (CME) start lifting off from the sun, but we don't know if it is going to produce high energy particle radiation, and we don't know if that radiation is going to reach Earth," said Justin Kasper, principal investigator for SunRISE at the University of Michigan.

"The various theories about particle acceleration correspond to different parts of coronal mass ejections. So, if we can see which part of the CME is glowing in radio, we can figure out which acceleration model is right."

That can, in turn, help scientists identify those events that could produce high-energy particles that can result in hazardous space weather activity at Earth. "It could also result in a unique warning system for whether an event will both produce radiation and release that radiation towards Earth or spacefaring astronauts." <https://spacenews.com/nasa-selects-space-science-cubesat-mission/>

UK Police Force Takes Flak for COVID Drone Tweet Jason Reagan March 30, 2020



On Thursday, Derbyshire Police [tweeted](#) a 90-second aerial video of two people walking their dog in the Peak District's Curbar Edge national park days after the UK issued a coronavirus lockdown.

"Despite posts yesterday highlighting issues of people still visiting the #PeakDistrict despite government guidance, the message is still not getting through," the tweet read. "Travelling to remote areas of the #PeakDistrict for your exercise is not essential travel."

Despite posts yesterday highlighting issues of people still visiting the [#PeakDistrict](#) despite government guidance, the message is still not getting through. [@DerPolDroneUnit](#) have been out at beauty spots across the county, and this footage was captured at [#CurbarEdge](#) last night. pic.twitter.com/soxWvMI0ls



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However, the [Guardian](#) checked with the British government and found “the guidelines did not prohibit driving somewhere for exercise or dog walking.” In an appearance on BBC Radio 4’s Today, Derbyshire Police Superintendent Steve Pont defended the tweet: “We wanted to reinforce the message of stay home and a number of people aren’t staying home, they’re finding excuses or loopholes – and we just wanted to illustrate that this is the wrong thing to do.” <https://dronelife.com/2020/03/30/uk-police-force-takes-flak-for-covid-drone-tweet/>

I Used My Drone to Take Fun Portraits of People in Self-Isolation MAR 27, 2020 ADAS VASILIAUSKAS



Since we’re all stuck inside and social distancing, I recently took out my drone and photographed people in their homes through their windows or on their terraces. It’s a 100% zero-human-contact way to see how people are going crazy during quarantine times.

When Lithuania went under quarantine, all my photography jobs in advertising were canceled. I knew that I needed to photograph something interesting, but this social distance thing was tricky. At first, I thought of offering to shoot people with a telephoto lens, but then I remembered that the drone is a totally zero-human-contact way to capture things. I shot a few of my friends, the photos gained a lot of likes, and the project took off.

I started this project to give people a chance to brighten their day in this negative coronavirus information overload environment. I hope these funny photos remind everyone that sitting quarantined at home can be fun too. And, of course, I hope they also remind people to keep their social distance during these scary times. See all the photos at: <https://petapixel.com/2020/03/27/drone-portraits-of-people-trying-to-stay-sane-and-have-fun-in-self-isolation/>



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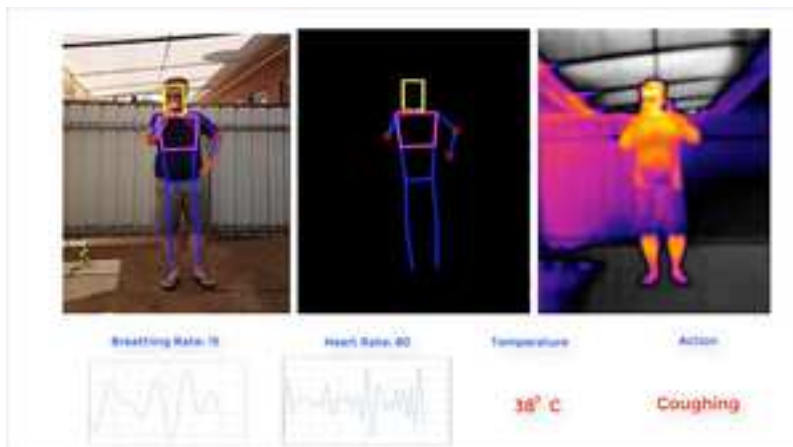
Autonomous 'Pandemic Drones' Can Detect Coughing, Fever and More to Fight Coronavirus DL Cade PetaPixel 4 days ago



US drone maker [Draganfly](#) is working with the Australian Department of Defense and University of South Australia to deploy special "pandemic drones" that can detect coughing, sneezing, respiratory rate, and even fever from a distance.

These autonomous drones are part of the Vital Intelligence Project, a collaboration between the University of South Australia and the Australian DOD that just selected Draganfly as its exclusive integration partner. They seek to detect and track respiratory conditions to combat COVID-19 and future health emergencies.

The drones will be able to detect fever, respiratory rate, actions like coughing, and even blood pressure. Here's what a read-out from the drone might look like, as it watches a particular subject and updates in real time:



Draganfly says they're trying to get them in the air soon. A Draganfly spokesperson tells *PetaPixel* that the company is already "working with local and regional gov. officials on engaging the drones as soon as possible in the most obvious hot spots throughout the US."

While this might seem like dystopian science fiction to some people, the current crisis means the widespread use of "pandemic drones" is probably not too far off. <https://www.idra.co/post/autonomous-pandemic-drones-can-detect-coughing-fever-and-more-to-fight-coronavirus>



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CORONAVIRUS: Malaysia to use drones to control public movement APPLICATION EMERGENCY SERVICES INTERNATIONAL NEWS SAM LEWIS MARCH 23, 2020



The government said that this will continue until at least the end of the Movement Control Order, which runs up until the end of March. Malaysia's armed forces will be running the drone program, and will also be aiding police efforts on the ground to manage the coronavirus situation. Military medical facilities and resources will also be opened up to the public.

Chief general Tan Sri Affendi Buang commented on Malaysian television: "We will utilize technology by way of drones and UAVs to undertake the task of **surveillance**."

Drones are expected to become a part of the country's efforts to keep the problem at bay in the coming days. https://www.commercialdroneprofessional.com/coronavirus-malaysia-to-use-drones-to-control-public-movement/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327230-Commercial+Drone+Professional+DNA+-+2020-03-31

Autonomous Drones Are First Line of Defense in Global Health Disasters March 31, 2020 News



Aquiline Drones is preparing to power unmanned vehicles with the industry's first drone-dedicated cloud, AD Cloud, this May.

"Around the world, authorities are turning to drones in the battle against the Coronavirus pandemic, using them to remove humans from the risk of infection," said Barry Alexander, founder and CEO of Aquiline Drones. Specifically, AD Cloud can program unmanned aerial vehicles and unmanned ground-based vehicles with cloud-based command and control to conduct such mission-critical exercises as:

- Delivery of medical supplies to front-line healthcare workers
- Transport of test results to labs
- Delivery of medicine and urgent supplies to individuals quarantined at home
- Disinfectant spraying into public pandemic areas
- Serving as mobile public speakers to inform people of safety measures and tips
- Patrolling high-risk areas with photoelectric sensors to enforce curfews



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- Monitoring health of employees with heat signature, infrared cameras
- 24-hour surveillance of critical infrastructure, such as power and nuclear facilities and water and sewage treatment plants, as well as essential retail operations, like grocery stores, pharmacies and gas stations

UAVs or UGVs, connected to the AD Cloud, can also generate aggregated, real-time data which enables companies to make statistical forecasts and logical inferences for resource planning and allocations. https://uasweekly.com/2020/03/31/autonomous-drones-are-first-line-of-defense-in-global-health-disasters/?utm_source=rss&utm_medium=rss&utm_campaign=autonomous-drones-are-first-line-of-defense-in-global-health-disasters&utm_term=2020-03-31

1Apr20

GA-ASI conducts maiden flight of remotely piloted aircraft 1 APRIL 2020 NEWS



General Atomics Aeronautical Systems (GA-ASI) has concluded the construction and conducted the maiden flight of the first production representative MQ-9B SkyGuardian Remotely Piloted Aircraft.

The first flight of this aircraft was conducted at GA-ASI's Flight Operations Facility located in El Mirage, California, US.

"Protector revolutionizes the long-endurance RPA market by providing true all-weather capability and NATO-standard Type-Certification to enable flexible operations in civil airspace."

Protector RG Mk1 will be procured for the British Royal Air Force's configuration of the SkyGuardian aircraft. Known as BC03 within GA-ASI, the new SkyGuardian has been developed for ground and flight testing to collect airworthiness certification data. The collection of data will begin with flight loads and aircraft performance testing. <https://www.airforce-technology.com/news/ga-asi-conducts-maiden-flight-of-remotely-piloted-aircraft/>

New Capabilities Enhance Heron UAS Family Paid content by IAI 31 March 2020



As a family of unmanned Aircraft systems, the Heron brand comprises the Heron TP, Heron I, Heron MK II, and the new variant - T Heron (Tactical Heron) configured for maritime and land operations. The drone family shares ground segments, common



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systems, and mission payloads, enabling users to perform numerous missions, consolidate training, qualification, maintenance and logistics. IAI continues to evolve the Heron family, introducing new mission payloads and capabilities.

While the Heron primary mission is military, these assets can rapidly be assigned to **civilian roles** responding to natural disasters or other emergencies. It provides situational assessment and monitoring of the disaster area, delivering live video, motion detection and rapid assessment of the locations that need the most urgent assistance.

With large payload capacity and long endurance, the Heron can establish emergency communications services covering large areas and link back to national, international and satellite networks. It can also use cellular communications scanners to locate people trapped in collapsed buildings or isolated in flooded areas by detecting their mobile phones.

<https://www.flightglobal.com/sponsored-content/new-capabilities-enhance-heron-uas-family/137640.article>

World's first diabetes medication drone delivery revealed in new paper

APPLICATION DELIVERY HEALTH SAM LEWIS APRIL 1, 2020



The world's first drone delivery of diabetes medicine was completed successfully last year in Ireland, and now a new paper from the scientists involved has given more details on the operation.

The 16-minute flight saw insulin delivered safely from Galway to the Aran Islands, 12 miles off the west coast of Ireland. The **coronavirus pandemic** has added a **completely new significance** to the BVLOS test flight which could pave the way for similar deliveries during lockdown.

Quoted in the *Journal of the Endocrine Society*, principal investigator Derek O'Keefe said: "We now have the drone technology and protocols in place to deliver diabetes medications and supplies in an actual disaster if needed." As well as medical hurdles, there were difficulties involving flight permissions and regulation to consider, but that they pulled it off successfully on the first attempt. https://www.commercialdroneprofessional.com/worlds-first-diabetes-medication-drone-delivery-revealed-in-new-paper/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327343-Commercial+Drone+Professional+DNA+-+2020-04-01



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Noise alert! JAN TEGLER APRIL 2020



Dozens of companies are designing and in some cases test-flying urban air mobility aircraft, also known as air taxis. Basil Yap, the unmanned air system program manager for the North Carolina Department of Transportation, was on hand in early January for a demonstration flight of the EHang 216, a Chinese-built remotely piloted aircraft with two passenger seats. Powered by 16 electric motors and rotors, the craft made a five-minute flight in front of North Carolina Gov. Roy Cooper, state legislators and staff from the Department of Transportation. Yap says the multirotor vehicle was “not as loud as I expected” with “a hum at a much lower frequency” than small consumer drones.



A pilot flies Volocopter's 2X test model in Singapore.

NASA, FAA and university researchers are developing software tools to model and predict UAM noise. Developers will begin assessing the accuracy of those tools during NASA's Advanced Air Mobility National Campaign, a series of four test events between now and 2027. NASA will kick off the campaign in November for initial flight trials in early 2021 with Joby Aviation of Santa Cruz, California. The company will fly its prototype air taxi at the U.S. Army's Fort Hunter Liggett near King City, California, in scenarios designed to help FAA “better understand how UAM vehicles fly. The four test events will build toward tests in an urban environment.

<https://aerospaceamerica.aiaa.org/features/noise-alert/>

Spain is the first European country to use agricultural drones to fight COVID-19

Michelle Lewis Apr. 1st 2020



Spain has been one of the most deeply affected countries in the world by the coronavirus. [As of today](#) at 1:30 EDT, it's had 102,136 cases and 9,053 deaths.

So the Spanish Military Emergency Unit is deploying agricultural drones to spray disinfectant around large outdoor areas as well as inside large vehicles.

The DJI MG-1 can carry 10 kg liquid payloads including pesticides and fertilizers. An area of 4,000-6,000 square meters can be covered in 10 minutes, or 40 to 60 times faster than manual spraying operations.



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And Seville-headquartered [DroneTools](#) describes the DRONEHEXA XL as their tool for loads of 3 kilograms with a range of 25 minutes. It is used for industrial inspections, surveying, and agriculture.

As the [World Economic Forum wrote](#) on March 16, drones were used in China as a key tool for responding to COVID-19 for aerial disinfection, medical sample transport and delivery of consumer items. *Depending on the application, drone spray can be 50 times more efficient than people spraying.* <https://dronedj.com/2020/04/01/spain-first-in-europe-agricultural-drones-covid-19/>

Ultimate coronavirus drone footage roundup: USA, China, Italy, Spain, and more

Stephen Hall Apr. 1st 2020



The novel coronavirus has had an incredible impact on some of the biggest urban centers in the world, shutting them down for weeks and months to slow the spread. This has unsurprisingly led to some post-apocalyptic footage from drone operators in those areas. Rightfully so, since this might actually be a once-in-a-lifetime opportunity to capture what the

world's busiest cities look like when most everyone stays indoors. Here's some of the best coronavirus drone footage so far from New York, Boston, Los Angeles, Nashville, Chicago, Detroit, Wuhan, London, Madrid, Milan, Paris and Zurich.

These videos are from earlier stages of the outbreak, and things are even quieter now than they were then. <https://dronedj.com/2020/04/01/ultimate-coronavirus-drone-footage-roundup-usa-china-italy-spain-and-more/#more-25733>

2Apr20

DroneUp Acquires AeroVista Innovations



Virginia Beach, VA (April 2, 2020) -- DroneUp, LLC is pleased to announce that it has acquired AeroVista Innovations, LLC to provide full-service drone training to private and public sector organizations. DroneUp will transition merged business operations into the DroneUp brand as The DroneUp Training Academy.



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AeroVista Innovations, founded in 2016, provides training, in-house drone program implementation and FAA regulatory compliance consultation that aid public agencies and corporations in their drone training, consulting, and sourcing projects.

The DroneUp Training Academy will continue to be led by both Brenden Stewart, Training Director, and Melanie Harris, Sales Director, furthering momentum to offer training and equipment purchases implementing one-stop drone solutions.

We have an exceptional network of pilots and an experienced team of leaders,” stated Tom Walker, Founder & CEO of DroneUp. “Our training division allows us to enhance the skills of our pilots who fly complex missions for our customers and to assist our clients in problem-solving.” For more information on AeroVista Innovations please visit droneup.com.

3Apr20

Fortem Technologies launches new DroneHunter F700 autonomous interceptor drone COUNTER-DRONE SAM LEWIS APRIL 3, 2020



Fortem describes its new flexible undercarriage and interchangeable counter measures for single, multiple or swarm-based threats. It also has a lightweight carbon fiber frame, allowing for greater speed and maneuverability. The undercarriage features pogo pins and payload snaps that are integrated with AI-enabled firing and flight software.

The F700 uses algorithms to safely navigate urban areas and offers significant payload capacity to handle situations over civilians so that no drones fall from the sky. Heavier drones are tethered or parachuted to a predetermined safe zone.

Timothy Bean, Fortem CEO, said: “We have advanced the DroneHunter F700 so that it can **deliver any ordinance** necessary to stop drones and to protect stadiums, refineries, campuses and entire metro regions. It is the premiere AI-enabled interceptor drone in the world.”
https://www.commercialdroneprofessional.com/fortem-technologies-launches-new-dronehunter-f700-autonomous-interceptor-drone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327496-Commercial+Drone+Professional+DNA+-+2020-04-03