UAS and SmallSat Weekly News

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RAF experimental drone squadron stalled by coronavirus Harry Lye 1 APRIL 2020 NEWS

Operating out of RAF Waddington as of today, 216 Squadron is set to take on the role of operating the RAF's fleet of experimental drones to bring swarming drone capabilities into service. The swarming drones are designed to confuse enemy air defenses and infrastructure, allowing conventional fighter jets like the F-35 or Eurofighter Typhoon to safely strike targets.

The reformation of the squadron has been overshadowed by the Ministry of Defence's ongoing efforts to assist civilian authorities in response to the spread of the Covid-19 coronavirus pandemic. British Army personnel are working to supply logistics support to the NHS, and the RAF is providing helicopter capabilities to assist in the transportation of patients.

216 Squadron will look to further develop its capabilities later in the year, however, the RAF is still assessing how the spread of Covid-19 will affect future plans, manning and timelines for developments. https://www.airforce-technology.com/news/raf-experimental-drone-squadron-stalled-by-coronavirus/

Space Development Agency to seek bids for its first constellation Sandra Erwin April 2, 2020

WASHINGTON — The Space Development Agency intends to select two or more companies later this year to design, build and test a mesh network of up to 20 satellites in low Earth orbit by 2022. This will be the Pentagon-based space agency's first step toward building a much larger constellation by 2024 to provide global connectivity to the U.S. military, officials said April 2.

A final solicitation for bids for the mesh network that SDA calls "transport layer" will be issued around May 1, the agency's director Derek Tournear said on Thursday during an online "industry day." SDA hosted the meeting online and drew an audience of over 500 people.

Contracts for the design and production of a constellation of up to 20 satellites will be awarded as early as August to two or more vendors. https://spacenews.com/space-development-agency-to-seek-bids-for-its-first-constellation/

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First Black Hornet UAS Vehicle Reconnaissance System Delivered 01 Apr 2020 Mike Ball

FLIR Systems has provided the first of its Black Hornet integrated Vehicle Reconnaissance Systems (VRS) to the Norwegian Defence Research Establishment (FFI), the country's premier defence-related research and development institution, as part of a military base protection program which includes live testing of new concepts involving multiple active and passive sensors, command and control systems, as well as threat mitigation and defeat capabilities.

The VRS, based around FLIR's Black Hornet nano-UAV Personal Reconnaissance System, equips armored or mechanized vehicles with an immediate, self-contained surveillance and reconnaissance system. A launch unit mounted to the exterior of the vehicle, with controls within the interior can deploy up to four Black Hornet drones. The VRS thus delivers real-time situational awareness while crews stay protected inside their vehicle. The Black Hornet UAV is designed and built by FLIR in Norway.
https://www.unmannedsystemstechnology.com/2020/04/first-black-hornet-uas-vehicle-reconnaissance-system-delivered/?utm_content=buffer61782&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Navy Awards Boeing $85M Contract Modification for MQ-25 Refueling Drone Test Articles Matthew Nelson April 3, 2020 News

Boeing has secured a $84.7M contract modification to build an additional three test articles of the U.S. Navy's MQ-25 unmanned aerial refueling aircraft.

The branch exercised options on a potential $805M contract awarded in August 2018 for the production of up to four carrier-based unmanned air vehicles. The company recorded 30 hours of flight operation for the first MQ-25 test asset, dubbed T1, at different altitudes and speeds during the initial testing round.

T1 is scheduled to undergo further tests later this year after the planemaker completes integration of an aerial refueling store system under the aircraft's left wing.

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The Department of Defense said Thursday the branch will obligate $63.5M on the modification at the time of award. DoD expects the company to finish work by August 2024. https://www.govconwire.com/2020/04/navy-awards-boeing-85m-contract-modification-for-mq-25-refueling-drone-test-articles/

Firefighting drones extinguish 10-story blaze in China demonstration Sean Captain Apr. 3rd 2020

Firefighters in the Chinese city of Chongqing recently used drones to put out a 10-story blaze in just 15 minutes. (The drones have a 20-minute battery life.) They carefully choreographed the test. Material was mounted on the *outside* of a concrete tower: five tons of firewood, 661 pounds of heating oil, and 220 pounds of gasoline. A set of drones lifted firehoses to the top of the blaze and gradually worked their way down.

This doesn't reflect a real-life high-rise blaze in which much of the fire is inside the building and requires crews working from the interior to extinguish it. However, drones could help with the flammable material on the outside of many buildings, such as aluminum panels with polyethylene insulation.

Even without firehoses, drones are a key component of modern firefighting arsenals. Drones with thermal-imaging cameras can pinpoint the hotspots of a building as well as recognize the location of people within, helping firefighters concentrate their efforts. Drones also survey large blazes, such as the wildfires that plague California and other Western states every year. And they can be used after the fact to survey the damage to help with recovery and reconstruction efforts. https://dronedj.com/2020/04/03/firefighting-drones-extinguish-10-story-blaze-china/

DJI's COVID-19 US disaster relief program statistics Josh Spires Apr. 3rd 2020

Late last month DJI Enterprise announced it would be activating its Disaster Relief Program in response to the massive spread of COVID-19 within the United States. Since then, DJI has managed to distribute 100 drones to 40 police, fire, and public agencies across 21 states.

"We want to learn what works and what doesn't work, gather information about different use cases, develop best practices and share

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that information with everyone." DJI created the Disaster Relief Program last fall to support public safety agencies during natural disasters such as hurricanes, tornados, wildfires, and floods. As COVID-19 has become a main focus in the world right now, DJI molded the program to help fight it and help the country's police, fire, and rescue along with other public safety agencies.

They have received 100's of requests from police, fire, and emergency management departments, state patrols, search and rescue units, and even hospitals around the United States. The areas hit by COVID-19 the hardest will be the first to get help from the Disaster Relief Program. https://dronedj.com/2020/04/03/dji-covid-19-us-disaster-relief-program/#more-25875

Drones could be used to disinfect Australia's streets, malls Josh Spires Apr. 3rd 2020

Drones could soon be used in Australia to disinfect the streets, shopping malls and playgrounds in a new plan to take on the coronavirus and squish it as soon as possible. The Westpac Little Ripper drones are currently flying in a trial to see if they can be used to disinfect Australian streets, shopping malls and playgrounds to reduce the effect of coronavirus.

The Little Ripper Group recently received DJI's Agras MG-1P agricultural spraying drones to help with the need to spray disinfectant.

"The drones can deliver disinfectant through environmentally friendly active agents. This can neutralize the COVID-19 virus on surfaces in places like public malls, public playgrounds, public gym areas, schools, universities, hospitals, child-care centers, aged-care facilities, shopping centers, supermarkets, factories and warehouses." https://dronedj.com/2020/04/03/drones-disinfect-australia-streets-malls-playgrounds/#more-25873

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New Version of UAS Standardization Roadmap Released 02 Apr 2020 Mike Ball

The American National Standards Institute has released a working draft of Version 2.0 of the Standardization Roadmap for Unmanned Aircraft Systems for public review and comment. The roadmap is being developed by ANSI's Unmanned Aircraft Systems Standardization

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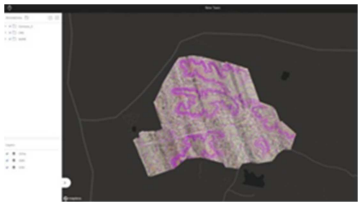
Collaborative.

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. Issues addressed in the roadmap include airworthiness, flight operations, personnel training, qualifications and certification, infrastructure inspections, environmental applications, commercial services, workplace safety, and public safety operations. The document also includes brief introductions to the UAS activities of the Federal Aviation Administration, other U.S. federal government agencies, SDOs and industry.

Specific goals for Version 2 of the document include expanding the content to include topics such as spectrum, urban air mobility and recreational operations; engaging subject matter experts not previously involved; identifying potentially overlooked gaps; tracking progress by standards developers to address the roadmap's recommendations; reviewing priorities; and otherwise incorporating feedback. https://www.unmannedsystemstechnology.com/2020/04/new-version-of-uas-standardization-roadmap-released/?utm_content=buffere74f4&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Indshine makes drone maps more flexible, collaborative, and powerful APRIL 3, 2020 João Antunes



Being used in more than 126 countries by drone mapping companies, GIS experts and enterprises, Indshine allows professionals to get the most out of drone maps. From India to the world, Indshine is a device-agnostic, browser-based platform for drone maps.

Designed for Infrastructure, Mining, Forestry, Agriculture and Construction, Indshine allows users to add multiple layers of orthomosaics, elevations models, thermal & NDVI maps in a single project and calculate stockpile volume, cross section profile or measure distances and area. With no hardware limitations, data is always available from any device.

To understand what Indshine does and the type of data it provides, the company created a project library featuring sample datasets shared by organizations. In addition, for anyone interested in getting into drone mapping and surveying, Saksham Bhutani, Marketing Head at

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Indshine, wrote a blog post about what aerial mapping is, what we get out of aerial mapping, and its applications.

Apart from the paid subscription plans starting at $12 per month, Indshine recently decided to offer a free limited starter plan with 5GB of storage with no time limit to everyone due to how the COVID-19 pandemic is forcing millions of people to work from home.
https://www.commercialuavnews.com/surveying/indshine-makes-drone-maps-more-flexible-collaborative-and-powerful

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Pandemic drones: Useful for enforcing social distancing or for creating a police state? MICHAEL RICHARDSON MAR 31, 2020

Police in Western Australia have announced plans to deploy drones to enforce social distancing. The drones will visit parks, beaches and cafe strips, ensuring people comply with the most recent round of gathering rules.

As COVID-19 restrictions tighten around the world, governments are harnessing the potential of drones - from delivering medical supplies, to helping keep people indoors. Since the outbreak began, China has used drones to deliver medical supplies and food, disinfect villages, and even provide lighting to build a hospital in Wuhan in nine days. Drone medical deliveries have cut transit times, reduced the strain on health personnel and enabled contactless handovers, reducing the risk of infection.

These measures may be difficult to rollback once the pandemic passes. Safeguards will be needed to prevent unwanted surveillance in the future. The main game has been about control. China is using drones to enforce quarantine rules and deter gatherings that violate social distancing rules.

Walking around without a protective face mask? Many village and cities in China are using drones equipped with speakers to patrol during the #coronavirus outbreak. Drones can help police and other officials monitor large areas to identify those violating restrictions. There are huge advantages in sending drones into disaster zones such as bushfires or remote landscapes for search and rescue.

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But while "good drones" can be valuable in disaster, they have been criticized for giving drone warfare an ethical veneer by association with humanitarian work.
https://gcn.com/articles/2020/03/31/pandemic-drones.aspx?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=c385ead7a9-EMAIL_CAMPAIGN_2020_04_05_12_10&utm_medium=email&utm_term=0_2ecada6f57-c385ead7a9-33089729

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Drone delivery expands in Christianburg as social distancing sets in SAM WALL The Roanoke Times Apr 4, 2020

Wing is operating out of a compound of shipping containers the company calls the "Nest" in Christiansburg.

Package carrying drones are dispatched from a launch site the company calls the "Nest". Matt Gentry | The Roanoke Times

ROANOKE — Wing Aviation is partnering with two more businesses to add to the list of items its drones will deliver.

The company also announced that it will expand the pharmacy items available for order to include more medicines and food options in light of the COVID-19 pandemic.

Christiansburg's Mockingbird Cafe & Bakery and Brugh Coffee have joined in partnership with the Google sister company. A variety of baked goods from Mockingbird and cold-brew coffee and beans from Brugh will be delivered to Wing each morning. They will then be available for drone delivery throughout the day. The drone service already has partnerships with Blacksburg sweet shop Sugar Magnolia, FedEx and Walgreens.

Wing spokeswoman Alexa Dennett said plans to add the two Christiansburg businesses had been in the works for months, but the timeline was moved up due to the increased use of the service by those wanting to stay home and isolate themselves. She said she couldn't say how many people had signed up for the service in recent weeks, but the company has seen a large

increase in orders, from new customers and those already signed up. "Last week was one of our busiest weeks to date." https://www.richmond.com/news/virginia/drone-delivery-expands-in-christianburg-as-social-distancing-sets-in/article_5140b796-c0af-5526-9dff-67ac98131986.html

Drones Play a Role in the Digital Future of Healthcare [Infographic] Miriam McNabb April 06, 2020

ID Medical Group, the U.K.'s leading recruiter in the medical field, has a unique perspective on trends in the medical industry. They've taken a deep dive into the U.K.'s National Health Service Long-Term Plan to see what the future holds for healthcare. In the following infographic, they've outlined the trends – and they're fascinating. Implants injected under the skin will analyze your blood for toxins, viruses, and bacteria to warn you of an impending illness before you even feel any symptoms. AI supercomputers will analyze your bio-samples (like saliva and blood) and diagnose your condition within minutes with 90% accuracy. Blood samples will be taken at birth and used to create a personalized healthcare plan of custom vaccines, gene therapies and surgeries you will need over the next 20-50 years.

Drones have an increasing role to play: being sent out in advance of ambulances to provide supplies and early care while paramedics are enroute. This is an application that has already been tested, as drones are used to deliver cardiac defibrillators and time-critical equipment. In increasingly traffic clogged cities, sending airborne response out in advance of ambulances could save lives. Take a look at the illustrations to see the future of digital healthcare. https://dronelife.com/2020/04/06/drones-play-a-role-in-the-digital-future-of-healthcare-infographic/

Drone Mapping is Getting Bigger and Better SimActive's Philippe Simard Talks Industry Trends Miriam McNabb April 03, 2020

"We used to only work with firms investing millions of dollars in planes – I can still remember the point at which those clients said they were considering drones," says Philippe Simard of Canada's SimActive mapping software . "We changed to accommodate, and now two thirds of the revenue is from drones."

SimActive is growing fast: they've increased staff by more than 50% in the last year to keep up with customer growth. "Drones have been a game changer for us." It's a game that's still

changing. With new sensors, new drones, and new technology available, the industry keeps expanding – and software companies like SimActive are constantly evolving to stay abreast. "We're constantly pushing R&D to stay ahead, and we do that by constantly listening to the clients. They're the ones telling us what they want, we're reacting to market needs." https://dronelife.com/2020/04/03/drone-mapping-is-getting-bigger-and-better-simactives-philippe-simard-talks-industry-trends/

AgroScout farming solution closes $3m funding round BUSINESS FINANCIAL SAM LEWIS APRIL 6, 2020

Funding was led by Kibbutz Yiron and included other investors like Exit Valley crowd-funding platform, Agriline and The Trendlines Group, as well as grants from the Israel Innovation Authority and the BIRD Foundation.

AgroScout's solution integrates external data collected by drones together with AI software, deep learning and computer vision. The system can autonomously detect, identify, and monitor diseases, pests, and other agronomic problems in field crops. This allows farmers to target certain areas with chemicals or pesticide, resulting in a significant reduction in the percentage of crops that succumb to disease and pests and also a reduction in the use of expensive chemicals.

AgroScout CEO Simcha Shore commented: "We expect this new round to enable us to deepen our strong relationship with Oracle, to offer a flexible, cutting-edge AI solution for farmers, enabling them to increase their yields and contribute to global food security for all." https://www.commercialdroneprofessional.com/agroscout-farming-solution-closes-3m-funding-round/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327592-Commercial+Drone+Professional+DNA+-+2020-04-06

Iris Automation announces first onboard 360-degree detect-and-avoid system

NEW PRODUCTS SOFTWARE TECHNOLOGY SAM LEWIS APRIL 6, 2020

Thanks to integrated computer-vision algorithms, a drone utilizing the Casia 360 system can make intelligent decisions regarding other aircraft.

This system allows safer beyond visual line of sight flight, giving an automatic alert to the pilot as well as triggering an automated maneuver to avoid the potential collision.

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The Casia system is a combination of hardware and software that is lightweight, low power and small in size. It has undergone extensive testing, with real-world test flights and mid-air collision scenarios.

"Casia 360 allows a drone to have a complete sense of its surroundings so it can avoid potential collisions from any direction," said Iris Automation CEO Alexander Harmsen. "We developed this technology based on feedback from our customers and regulatory bodies around the world. The Casia 360 is available for preorder now.
https://www.commercialdroneprofessional.com/iris-automation-announces-first-onboard-360-degree-detect-and-avoid-system/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327592-Commercial+Drone+Professional+DNA+-+2020-04-06

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Boeing demonstrates S-100 Camcopter UAV resupplying US Army soldiers Garrett Reim 6 April 2020

The S-100 is an unmanned helicopter, typically used for civilian surveying or military reconnaissance work, designed and built by Schiebel Industries of Austria. Boeing established a marketing contract for the S-100 in 2009.

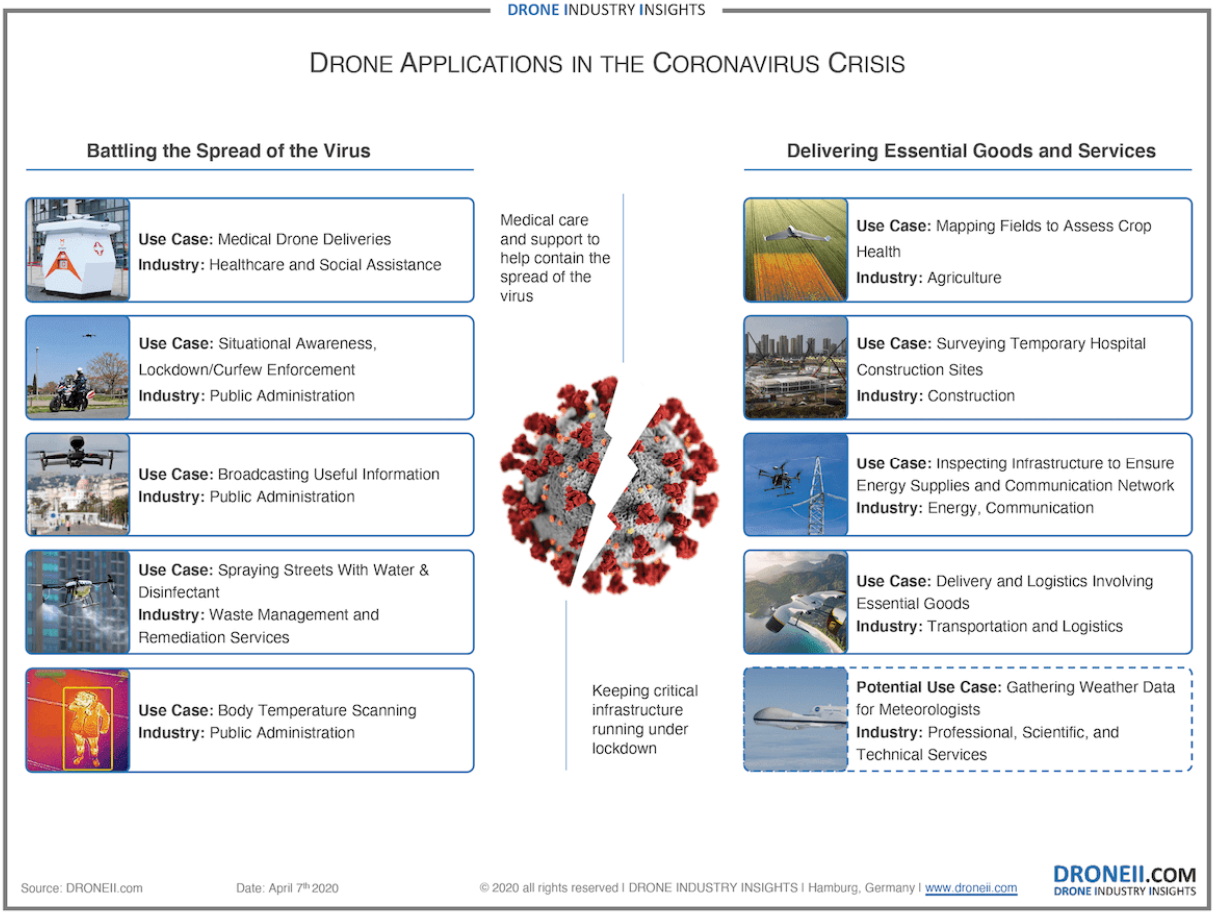
The demonstration was related to the US Army's Future Vertical Lift modernization program. A Boeing team flew the S-100 on 31 missions, delivering 1,600lb of "simulated blood and ammunition" via a cargo winch during the military exercise. The unmanned helicopter flew the missions autonomously. The S-100 is capable of carrying 34kg of payload for more than 6h. It can take a maximum payload of 50kg.

A first for vertical lift #UAV – the S-100 #CAMCOPTER recently delivered supplies to @USArmy troops, the first time an autonomous air vehicle with vertical takeoff and landing resupplied Army troops. Payloads on the S-100 have typically been surveillance equipment, such as electro-optical or infrared cameras, rather than cargo.

Schiebel has pitched the S-100 for a variety of uses, including power line, forestry and agricultural surveys, as well as aerial cinematography. The UAV has also been sold as a military intelligence, surveillance and reconnaissance platform for maritime and land roles. It has been ordered by a variety of military services, including those of the United Arab Emirates, Jordan,

China, Italy and Australia. https://www.flightglobal.com/military-uavs/boeing-demonstrates-s-100-camcopter-uav-resupplying-us-army-soldiers/137776.article

Drones and the Coronavirus: From Crisis to Opportunity 2020-04-06 Millie Radovic



https://www.droneii.com/drones-and-the-coronavirus-from-crisis-to-opportunity

SkyGuardian UAS Takes Part in NASA Demonstration 06 Apr 2020 Mike Ball

General Atomics Aeronautical Systems, Inc. has flown its SkyGuardian unmanned aerial system as part of a joint flight demonstration with NASA as part of the organization's Systems Integration and Operationalization activity. Multiple flight demos were performed, showcasing the abilities of different UAS types and their respective flight environments.

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The SkyGuardian took off from GA-ASI's Gray Butte Flight Operations Facility near Palmdale, California, and flew towards Yuma, Arizona while being remotely operated by a pilot based at Gray Butte. A Detect and Avoid System developed by GA-ASI was used to provide situational awareness of nearby air traffic. The DAAS incorporated a Traffic Alert and Collision Avoidance System developed by Honeywell, which is also widely used in manned aviation. It also included an air-to-air "Due Regard" Radar that provided detection and tracking capability of nearby aircraft that may not have had active transponders.

During the demonstration, the SkyGuardian UAS showcased abilities for commercial and public services applications, including inspections of hundreds of miles of rail, power line, communication and canal infrastructure, agriculture monitoring and topological surveys, as well as wildfire and flood monitoring.
https://www.unmannedsystemstechnology.com/2020/04/skyguardian-uas-takes-part-in-nasa-demonstration/?utm_source=UST+eBrief&utm_campaign=a65d24fa3a-eBrief_2020_07Apr&utm_medium=email&utm_term=0_6fc3c01e8d-a65d24fa3a-119747501

US center of excellence awarded $2.6 million grant aid to support safe integration of drones April 6, 2020 Jenny Beechener UAS traffic management news

The US Federal Aviation Administration has awarded $2.6 million in research, education, and training grants to universities that comprise the agency's Air Transportation Center of Excellence for Unmanned Aircraft Systems also known as Alliance for System Safety of UAS through Research Excellence (ASSURE). The grants are aimed at continuing and enhancing the safe and successful integration of drones into the nation's airspace.

US Transportation Secretary Elaine L Chao said: "In addition to providing grants, we are also supporting activities that provide operational experience like the UAS Integration Pilot Program, all of which move us more quickly toward full integration."

The FAA estimates there are currently 1.7 million drones in the active UAS fleet. That number is expected to grow to 2.2 million by 2023. Grants are intended to advance specific goals and projects. The COE universities to receive a total of $2,578,071 for all four grants awards are listed here: https://www.unmannedairspace.info/latest-news-and-information/us-centre-of-excellence-awarded-usd2-6-million-grant-aid-to-support-at-safe-integration-of-drones/

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FAA Aerospace 20-year forecast predicts doubling of commercial UAS fleet by 2024 April 1, 2020 Jenny Beechener UTM and C-UAS market analysis

The US Federal Aviation Administration released its Aerospace Forecast 2020-2040 at the end of March 2020. The commercial UAS fleet by 2024 will likely be more than twice as large as the current number of commercial UAS. As the present base increases, the FAA anticipates the growth rate of the sector will slow over time. Nevertheless, it will be much larger than what was understood only a few years ago. Given the accelerated registration over the last year, the FAA now projects the commercial sUAS sector will have around 828,000 aircraft in 2024, the end of the 5-year period.

The agency recorded more than 108,000 registrations by commercial operators in 2019, about 10,000 every month. The pace of registration is slowing down in comparison to 2018, but is still relatively high. By the end of 2019, there were more than 385,000 commercial UAS registered since the registration for commercial sUAS opened in April 2016. According to the forecast, the FAA anticipates the growth rate will remain high over the next few years. This is primarily driven by the clarity that part 107 has provided to the industry in proposed new rule changes for operations over people and at night without waivers and remote identification.
https://www.unmannedairspace.info/utm-and-c-uas-market-analysis/faa-aerospace-20-year-forecast-predicts-doubling-of-commercial-uas-fleet-by-2024/

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Malaysia is deploying drones to fight coronavirus Josh Spires Apr. 7th 2020

The Civil Aviation Authority of Malaysia has given the go-ahead to the Royal Malaysian Police to deploy drones for enforcement and surveillance purposes to help reduce the spread of coronavirus. The operation will see the deployment of 92 drones throughout Malaysia.

The new drone-forward response to coronavirus will see five organizations working together around the clock to ensure the drones are running smoothly. “This drone operation is led by the police in collaboration with the Malaysian Armed Forces and three private drone companies — Deftech Unmanned Systems, System Consultancy Services, and Aerodyne Group. This CAAM-authorized operation will abide by the instructions and SOPs laid out by the police.” Anyone caught breaking the rules set by the NOTAM will face a minimum fine of RM50,000 (~$11,500)

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and the possibility of three years' imprisonment. Companies can face a fine of up to RM100,000 (~$23,000).

What are your thoughts on this big brother style deployment of drones? Is it an invasion of privacy that isn't necessary? Let us know in the comments below.
https://dronedj.com/2020/04/07/malaysia-deploying-drones-fight-coronavirus/

Daytona Beach cops use DJI drones to enforce COVID-19 park closure Sean Captain

Apr. 7th 2020

Police in Daytona Beach are using loudspeaker-equipped drones to warn residents about park closures.

The police department received two DJI Mavic 2 Enterprise drones on loan from the company's COVID-19 U.S. Disaster Relief Program. These drones have flown in most city parks in the past week, announcing that the facilities are closed. As Sgt. Tim Ehrenkaufer, head of the department's Unmanned Aviation Systems Unit, explained the purpose to the Daytona Beach News-Journal.

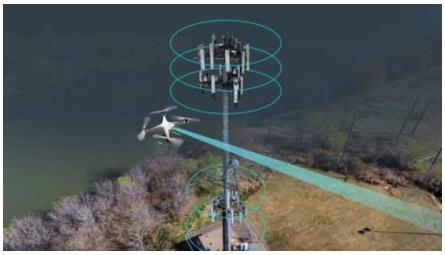
"What we're doing with the drone is reducing the officer having to go out there, walk into the park property, walk into a crowd of people, share those germs back and forth, just to deliver a message that the park's closed, don't be in here."

Daytona Beach is following the lead of several Mideast countries. Governments in Jordan, Kuwait, and the United Arab Emirates have all used drones for COVID-19 public-service announcements. They include reminders to practice social distancing and pleas for people to stay at home.

Police are considering using a larger model to take the temperature of people entering the police station. For this, police would use one of their larger drones equipped with a forward-looking infrared camera. People with a normal body temperature appear orange in the camera's display. People with fevers appear bright red.

Jordan and Saudi Arabia have used drones with heat-sensing cameras to survey crowds for people with fevers. New York City has also used a heat-sensing drone to check the temperature of visitors entering a makeshift hospital at the Javits Convention Center.
https://dronedj.com/2020/04/07/daytona-beach-police-drones-enforce-covide-19-park-closure/#more-26210

Rakuten Mobile Using AirMap's TowerSight Solution to Inspect Station Sites with Drones April 7, 2020 News



AirMap today announced that it is providing its TowerSight solution to Rakuten Mobile, Inc. to conduct drone inspections of its base station sites as it rolls out the world's first fully virtualized mobile network. Rakuten Mobile's implementation of TowerSight is an initiative of Rakuten AirMap Inc, a joint venture between Rakuten, Inc. and AirMap.

Each base station site must be inspected after installation to validate compliance. Rakuten Mobile previously conducted these inspections manually. Now, they are using drones to survey its tower portfolio, streamline its inspection workflow and verify proper installation of new base stations.

With TowerSight, tower companies and MNOs can use off-the-shelf drones to autonomously survey their infrastructure. TowerSight includes tools and features that enable users to request tower inspections, coordinate and dispatch missions, autonomously inspect sites, upload drone data and automatically process imagery to deliver key insights across teams.
https://uasweekly.com/2020/04/07/rakuten-mobile-using-airmaps-towersight-solution-to-inspect-base-station-sites-with-drones/?utm_source=rss&utm_medium=rss&utm_campaign=rakuten-mobile-using-airmaps-towersight-solution-to-inspect-base-station-sites-with-drones&utm_term=2020-04-07

Drones to look forward to in 2020 – DJI, Autel, PowerVision Josh Spires Apr. 8th 2020

Let's take a look at the new drones and why we are so excited to start flying them. Drones to look forward to in 2020 – DJI, Autel, PowerVision

DJI Mavic 3 - We hope to see a 1-inch sensor with the ability to zoom. We are also hoping to see improvements to the vision sensors aligning the DJI Mavic 3 closely with the Skydio 2. While we aren't aware of the actual specs of the Mavic 3 series at this time, we hope to see the drone launched in Q2 2020.

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Autel Robotics 2 Pro - The model we are most excited about is the Pro version with a 1-inch sensor, capable of 6K video in full 10-bit glory at 120Mbps and 20MP photos. The new drones also have omnidirectional obstacle avoidance sensors, a massive flight time of 40 minutes, a max speed of 72 kph, and a control distance of 9 km.

PowerVision PowerEgg X – It is an AI camera with three modes - AI camera mode, handheld mode and drone mode. The drone arms are removable and are attached via a unique connector. It is also waterproof and can be landed on the water with the pads.

The drone is equipped with a 1/2.8 inch CMOS sensor capable of 12 MP photos, 4K 60 fps video, and slow-motion video at 1080p 120 fps. The AI name refers to its ability to track objects as well as gesture tracking abilities. https://dronedj.com/2020/04/08/drones-2020-dji-autel-robotics-xdynamics/

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Alphabet's Drone Delivery Service in Virginia Sees Surge during Pandemic April 8, 2020

Alphabet Inc.'s Wing unit is seeing a dramatic increase in the number of customers using its drone delivery service in rural Virginia during the COVID-19 pandemic.

Wing, which began routine deliveries under a test program, approved by the federal government last October, has added new vendors and expanded the items customers can order to better serve people during the epidemic. Deliveries have more than doubled in the Christiansburg area, where the U.S. test is being conducted, and in a similar project in Australia.

In addition to partnerships with FedEx Corp. and the Walgreens drug-store chain, Wing recently began deliveries from a bakery and a coffee shop. Mockingbird Cafe sold 50% more pastries through Wing's drones in its first weekend with the company than it typically sold in its store prior to the virus-related business disruptions.

Deliveries from Walgreens have included toilet paper, medicine and toothpaste, the company said. It recently added items such as pasta and baby food to meet demands of people staying home. While the payload of Wing's autonomous drones is limited, orders are fulfilled within

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minutes. https://www.ttnews.com/articles/alphabets-drone-delivery-service-virginia-sees-surge-during-pandemic

New Jersey town enforcing social distancing with talking drones Natalie O'Neill April 8, 2020

This takes social distancing to new heights.

The town of Elizabeth, NJ has unleashed a fleet of talking drones to scold people for hanging out in groups during the coronavirus crisis. Five of the bossy 'bots on Tuesday began barking orders such as "STOP gathering!" while soaring above parks and other public hotspots.

"These drones will be around the City with an automated message from the Mayor telling you to STOP gathering, disperse and go home," the police department announced on Facebook. "Summonses HAVE AND WILL CONTINUE to be issued to those found in violation. Fines are up to $1000. You have been advised."

Footage of a police test run shows the gadget blaring a siren as it zips above cop cars in a parking lot. The futuristic fleet is on loan from the manufacturing firm DJI to urge folks to follow 6-foot social distancing guidelines. https://nypost.com/2020/04/08/nj-town-using-talking-drones-to-scold-people-for-gathering/

DroneUp Submits Proposal to the Unicode Consortium for a Drone Emoji

Launching Petition for Industry Participation April 9, 2020

Virginia Beach, VA (April 9, 2020) — DroneUp submitted a proposal to the Unicode Consortium, the governing body that sets global coding standards, appealing to them to make a drone emoji available in the release of Emoji 14.0. To rally support, DroneUp has released a petition on change.org to help demonstrate public support.

Amy Wiegand, Marketing & Communications Director of DroneUp, states, "Emoji are sent over five billion* times a day on Facebook alone. This supports the visibility of the drone industry on a global scale in a fun manner. These efforts are not meant to be serious, but they are impactful for creating synergy for use in everyday communication."

DroneUp is asking drone professionals and enthusiasts to join in the fun by signing and sharing the petition using the #DroneEmoji hashtag.
For further information: https://www.droneup.com/drone-emoji/

The Institute for Drone Technology Is Developing Drone Sanitization Standards for COVID-19 APRIL 6, 2020 Danielle Gagne

As a result of the COVID-19 pandemic, there have been many reports of grassroots efforts utilizing agricultural spray drones for the sanitation of public spaces, especially in China. But because these have been emergency efforts in response to the pandemic, there is little data about how effective these measures are, what risks are involved and whether or not it is a cost-effective way to combat the virus.

Spray drones have been used in precision agriculture for a number of years. Compared to manually spraying an area, a drone can cover 6,000 square meters every ten minutes. They are also designed to be effective at covering and soaking the areas they cover, which is paramount to protecting crops and killing infestations.

Drones spray from a height and are designed to saturate surfaces such as public walkways, stadiums, shopping centers, truck bays, loading docks, vehicles and hospitals.

There are hurdles to implement something like this to scale. Systematic testing will need to be developed to ensure safety and repeatable results. Public agencies are not going to adopt untested and unproven technology. The stakeholders who would likely deploy these methods would also need to buy-in to the technology and adopt it.

The sanitation industry is not currently aware of the capabilities of drones. Production of spray drones would have to ramp up, drone pilots would have to be trained and reallocated to this work. It is not a matter of whether drones can be deployed to do this task, it is a matter of having the resources, adopting the technology, SOP development and building awareness and buy-in. https://www.commercialuavnews.com/public-safety/the-institute-for-drone-technology-drone-sanitization-standards-for-covid-19-and-beyond?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsle

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Why Shares of Dronemaker AeroVironment Rose 18.6% in March John Bromels Apr 7, 2020

Shares of unmanned aerial vehicle manufacturer **AeroVironment** (NASDAQ:AVAV) rose 18.6% in March. It was one of the rare stocks to post a gain during the month, when an oil price drop and coronavirus fallout caused the S&P 500 to fall by 12.5%.

AeroVironment manufactures different types of military drones and is constantly competing for lucrative contracts with the U.S. government and foreign customers. Its shares tend to be pretty volatile, and they certainly bounced around quite a bit in March.

In the three days after the company reported a surprise Q3 2020 net loss on March 3, shares actually rose by 14.1% because CEO Wahid Nawabi raised the company's FY2020 guidance by $0.20 per share to a midpoint of $1.65 per share. The timing was fortuitous because the subsequent oil price collapse caused shares to tumble, and coronavirus fears routed the whole market (AeroVironment included) just three days later, on March 12.

The company's shares popped after news broke on March 17 that it was teaming up with fellow UAV maker **Draganfly** to market AeroVironment's Quantix Mapper system, but they tumbled again the next day as more bad coronavirus news hit. Finally, they soared to end the month up 18.6% on no apparent news whatsoever. Volatility has been the name of the game with shares ranging from less than $50 per share to $120 per share over the last three years. Sometimes, like in March, that volatility pays off. https://www.fool.com/investing/2020/04/07/why-shares-of-dronemaker-aerovironment-rose-186-in.aspx

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CORONAVIRUS: OMI aims to bring sports back with disinfectant drone

APPLICATION HEALTH NEWS UNITED STATES SAM LEWIS APRIL 9, 2020

OMI Environmental Solutions is offering up its drones for the disinfection of large indoor spaces like sports venues, potentially making them safe to use again amid the coronavirus pandemic.

The oil spill response specialist claims its Drone Disinfection System disperses a mist of EPA-approved agents, killing COVID-19 and 99.9% of bacteria within 60 seconds.

Its drones can disperse coronavirus-killing disinfectant inside large open areas such as stadiums, sports arenas, convention centers, warehouses, cinemas, cafeterias, gyms and other high-ceilinged rooms. This could mean these venues and more could return to public or private use in the near future.

At the very least, sports fans may see the continuation of their favorite league behind closed doors. OMI says its staff receives daily health and safety briefs, as well as before each job. Its practices adhere to current WHO and CDC COVID-19 guidelines.
https://www.commercialdroneprofessional.com/coronavirus-omi-aims-to-bring-sports-back-with-disinfectant-drone/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-327832-Commercial+Drone+Professional+DNA+-+2020-04-09

10Apr20

FAA Awards $2.6 Million in Grants for the Safe Integration of Drones April 8, 2020 Homeland Security Today

U.S. Transportation Secretary Elaine L. Chao today announced the Federal Aviation Administration is awarding $2.6 million in research, education, and training grants to universities that comprise the agency's Air Transportation Center of Excellence for Unmanned Aircraft Systems also known as Alliance for System Safety of UAS through Research Excellence.

"The research funded by these grants will provide valuable data as the Department leads the way to chart a course for the safe integration of drones into our national airspace," said

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Secretary Chao. "In addition to providing grants, we are supporting activities that provide operational experience like the Unmanned Aircraft Systems Integration Pilot Program, all of which move us more quickly toward full integration."

The grants are to advance specific goals and projects. The universities to receive a total of $2,578,071 for all four grant awards are listed here: https://www.hstoday.us/industry/grants-funding/faa-awards-2-6-million-in-grants-for-the-safe-integration-of-drones/

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