UAS and SmallSat Weekly News

Contents

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AeroDefense and USAF to develop drone detection system 19 JUNE 2020 NEWS

US-based privately held, woman-owned company AeroDefense has been contracted to develop a drone detection system for the US Air Force. As part of the contract, the company will partner with the 87th Security Forces Squadron and 621st Contingency Response Squadron to produce the system. The company's rapidly deployable system will be designed to track drones and pinpoint their pilots across the installation. It will defend its users against drone-borne attacks and unauthorized surveillance.

The company was selected in the Small Business Innovation Research program. It is managed by AFWERX, Air Force Innovation team and the Air Force Research Laboratory.

USAF 621st CRS lieutenant colonel Guarini said: "When deploying to an allied country, we need equipment that operates within their regulatory environment, so AeroDefense technology will be crucial in protecting our troops."

The company will adapt its existing drone detection technology, AirWarden, and add vehicle-mounted and drone detection sensors. https://www.airforce-technology.com/news/aerodefense-and-usaf-to-develop-drone-detection-system/

5G will be Transformative for UAVs PRESS 2020-06-19 UAV Expert News

The Association for Unmanned Vehicle Systems International, the world's largest nonprofit organization dedicated to the advancement of unmanned systems and robotics, has compiled a list of "wow-worthy" examples of the vision that the fifth generation of wireless technology (5G) is inspiring for the use of connected drones.

It says that 5G can: bring data-throughput speeds of up to 10 gigabytes per second, enabling real-time sharing of aerial video and other sensor data; enable devices to stay connected while traveling hundreds of miles per hour, allowing for remote deployment of AI-enabled, ultra-responsive autonomous fleets; and it could support up to a million connected devices per square kilometer — enough capacity to absorb an explosion in the Internet of Things alongside increasingly sophisticated mobile applications, on the ground and aloft. "5G is going to be transformative," says Tom Sawanobori, chief technology officer for CTIA (Cellular Telecommunications Industry Association). He cited a 2017 study by Accenture which estimated

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5G would bring 3 million new jobs, $275 billion in new investment and a $500 billion boost to the U.S. gross domestic product. http://www.uavexpertnews.com/2020/06/5g-will-be-transformative-for-uavs/?utm_source=Master&utm_campaign=6ac7673618-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-6ac7673618-89168288

NEW TRICK COULD SAVE AGRICULTURE EVEN IF ALL THE BEES KEEP DYING JUNE 18TH 20 DAN ROBITZSKI

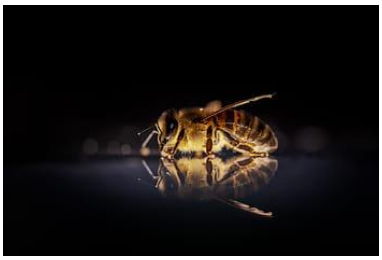

IMAGE VIA PXFUEL

Should bees continue to die off at a catastrophic rate, a team of scientists has a new technique they say we could use to continue to pollinate plants without them.

It turns out that soap bubbles — like the ones you might make with a kid's toy — can carry pollen as they float around, *CNET* reports. After mounting bubble makers onto the bottom of drones, scientists successfully pollinated a pear orchard, suggesting a possible way to grow crops should we fail to restore bee populations.

"It sounds somewhat like fantasy, but the functional soap bubble allows effective pollination and assures that the quality of fruits is the same as with conventional hand pollination," lead researcher Eijiro Miyako said in a press release.

But for now, actual bees are far more effective at pollinating plants and sustaining agriculture than bubble-launching drones. For instance, the researchers have yet to figure out how to get their system to work when it's rainy or even a little windy — so protecting bee populations should probably be a higher priority. https://futurism.com/the-byte/new-technique-save-agriculture-bees-die?mc_eid=95dc12f2c6&mc_cid=3687206c38

DroneBase Secures $7.5 Million to Bolster Growth in Renewable Energy June 17, 2020 News

DroneBase, a leading aerial data analytics company, today announced it has raised $7.5 million in Series C funding, has expanded its services to the renewable energy market with its new platform DroneBase Insights for Wind and Solar and has founded DroneBase Europe in Germany.

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New investors Valor Equity Partners and Razi Ventures join Union Square Ventures, Upfront Ventures, Hearst Ventures, Pritzker Group Venture Capital and DJI in the round, bringing the total funding to $32 million.

To service renewable energy companies, DroneBase Insights for Wind allows customers to use drones to inspect a wind turbine's components through an autonomous flight system. Trained on a database of turbine imagery, the platform leverages machine learning algorithms to pre-screen images without damage and focus customers' attention on potential issues.

Through DroneBase's thermal pilot network trained by the FLIR Infrared Training Center, DroneBase Insights for Solar gathers accurate data that otherwise would not be visible to the naked eye. Thermal sensors are necessary to detect anomalies such as hot spots and defects on solar panels. DroneBase's first international office in Germany will expand its ability to support current customers with assets in Europe, while introducing its capabilities to new clients.

Despite the global pandemic, DroneBase has continued to increase sales and set new revenue records in March, April, and May. With flight operations supported by a Pilot Network in all 50 states and over 70 countries, DroneBase can fly contactless missions to ensure safety of pilots and customers during this time. https://uasweekly.com/2020/06/17/dronebase-secures-7-5-million-to-bolster-growth-in-renewable-energy/?utm_source=rss&utm_medium=rss&utm_campaign=dronebase-secures-7-5-million-to-bolster-growth-in-renewable-energy&utm_term=2020-06-18

Israel's First 3D-printed UAV Takes to the Skies June 17, 2020 News

The joint program by the MoD's Flight Technologies Department, part of the Directorate for Defense Research and Development, and IAI has seen the production of the SkysPrinter UAV and a successful test flight.

The electrically powered UAV was made from 26 parts 3D printed using metal, nylon, carbon, and other complex materials. These were assembled together with glue and fasteners without the need for specialized tools. SkysPrinter's body is 1.65 m-long, has a wingspan of 1.5 m, and take-off weight of 7 kg.

Selective laser sintering was used to allow new designs of the SkysPrinter to be rapidly produced in line with operational feedback from commanders on the ground. If a heavier payload is needed, the design can be adjusted so the UAV has thicker wings for a larger take-off weight. https://uasweekly.com/2020/06/17/israels-first-3d-printed-uav-takes-to-the-

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skies/?utm_source=rss&utm_medium=rss&utm_campaign=israels-first-3d-printed-uav-takes-to-the-skies&utm_term=2020-06-18

Terra Drone Corporation Solidifies South East Asia Presence with New Base in Malaysia June 17, 2020 News

Terra Drone Corporation, a Tokyo-based technology company and one of the global leaders in the Unmanned Aerial Vehicles total solutions provider and enabler, is now officially in Malaysia.

With a physical presence in more than 15 countries, TDJP incorporated their latest entity, Terra Drone Technology Malaysia Sdn Bhd in Kuala Lumpur on 24th February 2020. Based in Technology Park Malaysia, TDMY will be providing drone survey, inspection and industrial services for multiple industries such as Oil & Gas, Telecommunications, Power, Construction, Agriculture and Government Agencies.

TDMY's main objective is to bring the TDJP's global and industrial technologies to Malaysia to spur Malaysia's drone Industrial Revolution.

To achieve this, Izwan Zainal Abidin, Managing Director/CEO of TDMY said, "We are looking forward to collaborating, rather than competing, with the Malaysian authorities the likes of Technology Park Malaysia, Malaysia Digital Economy Corporation, Civil Aviation Authority Malaysia and all the existing DSP in Malaysia and the surrounding region whether they are our potential partners, clients or even competitors. We are more than happy to work with all parties for the betterment of drone industries in general and for the benefit of Malaysians in particular." https://uasweekly.com/2020/06/17/terra-drone-corporation-solidifies-south-east-asia-presence-with-establishment-of-new-base-in-malaysia/?utm_source=rss&utm_medium=rss&utm_campaign=terra-drone-corporation-solidifies-south-east-asia-presence-with-establishment-of-new-base-in-malaysia&utm_term=2020-06-18

UAV market forecast to reach $21.8bn by 2027 BUSINESS FINANCIAL RESEARCH SAM LEWIS JUNE 19, 2020

New market research has forecast that the unmanned aerial vehicle market will reach $21.8 billion by 2027, growing at a compound annual growth rate of 14.1%.

The report from Meticulous Market Research suggested growth will continue due to the falling cost of drone production. It

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reads: “Rising adoption of UAVs in civil and commercial application, increasing deployment of UAV in border patrolling and combating terrorism, and regulations by the Federal Aviation Administration to permit the use of UAVs in several industries are the key factors driving the growth of the market.” It does admit, though, that legislative restrictions on their use in certain countries may inhibit this growth.

The report also noted that slowed manufacture and export from China has created a possibility for drone companies based elsewhere – such as America’s Skydio – to catch up with DJI. The report also breaks down the market by region, industry, and even drone type and component. It can be viewed at the Meticulous Market Research website.
https://www.commercialdroneprofessional.com/uav-market-forecast-to-reach-17-6bn-by-2027/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331283-Commercial+Drone+Professional+DNA+-+2020-06-19

Skygauge leads the way with post-COVID industrial inspection drones APPLICATION

DRONES AT WORK SAM LEWIS JUNE 19, 2020

Canadian company Skygauge Robotics is claiming to have ‘reinvented the drone’ in a bid to corner the ever-growing market for industrial inspection UAVs.

Demand for industrial inspection drones has risen in the wake of the coronavirus pandemic in a bid to aid social distancing efforts.

Skygauge claims that while most UAVs perform only surface-level inspections, its product can perform a wider range of tasks resulting in a more complete review of a structure or site. It hopes its drone will reduce costs, minimize human involvement, and make work safer.

A statement from the company: “The Skygauge has a novel design which contacts pipes, pressure vessels, and storage containers to detect cracks beneath the surface with sensors. “Currently, these inspections are expensive and time consuming because they’re performed by workers on ropes and scaffolding. “Using the Skygauge, a team of two inspectors can complete a two-week job in two days, reducing time on site by 80%.”

After filling its early adopter client list, Skygauge is now looking ahead to pre-orders for 2021 and its commercial launch. https://www.commercialdroneprofessional.com/skygauge-leads-the-way-with-post-covid-industrial-inspection-

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drones/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331283-Commercial+Drone+Professional+DNA+-+2020-06-19

NATO pays AeroVironment nearly $9.8m for Raven and Puma 3 AE drones

MILITARY SAM LEWIS JUNE 19, 2020

The firm-fixed-price orders were received on March 5, 2020 and April 16, 2020, with deliveries expected in August and October of this year. The orders are part of a three-year base contract received from NSPA in January 2020, which could see AeroVironment paid a total of $80 million in that time. The two optional added years would include logistics support for Raven, Wasp® and Puma tactical UAS, utilized by several NATO nations.

"AeroVironment's tactical unmanned aircraft systems, such as Raven and Puma, have helped transform the way US and allied forces plan, train, equip and operate," said Rick Pedigo,vice president of sales and business development at AeroVironment. "Both systems benefit from continuous technology improvements and pack significant capabilities into portable, man-packable platforms that provide operators with rapid and effective force protection."

The California-based AeroVironment specializes in unmanned aircraft systems and tactical missile systems, serving defense, government and commercial customers.
https://www.commercialdroneprofessional.com/nato-pays-aerovironment-nearly-8m-for-raven-and-puma-3-ae-drones/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331283-Commercial+Drone+Professional+DNA+-+2020-06-19

Draganfly introduces new agricultural package in partnership with MicaSense

AGRICULTURE APPLICATION SAM LEWIS JUNE 19, 2020

The Draganflyer Commander Ag-Pro Package combines the MicaSense RedEdge-MX multispectral sensor and the Draganflyer Commander UAV. The company said it includes everything needed to perform crop health assessment, irrigation monitoring and yield optimization.

Drew Baustian, business development manager at MicaSense, stated that he felt this package is an exceptional option for those looking for a professional-grade multirotor and multispectral setup. "The drone's specs and camera's data quality paired with a price point under $15,000 makes this a high-performing solution at an excellent price," he said.

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Meanwhile, Cory Baker, Draganfly's production manager, commented: "We're excited about bringing this affordable new multispectral option to market.
https://www.commercialdroneprofessional.com/draganfly-introduces-new-agricultural-package-in-partnership-with-micasense/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331283-Commercial+Drone+Professional+DNA+-+2020-06-19

22Jun20

The FAA's Drone Advisory Committee: Here's What Happened Miriam McNabb June 21, 2020

The Drone Advisory Committee met Friday to move forward with recommendations on critical issues for drone integration into the U.S. airspace. A recording of the full meeting can be found on YouTube or Facebook.

Elaine Chao, the U.S. Secretary of Transportation, started off the meeting thanking the FAA for their efforts at drone integration, and giving a nod to contactless delivery and drones in the current pandemic. "Drones are making a tremendous impact on aviation," said Chao. "…The usefulness of drones is more relevant today than ever before."

One of the agenda items was the final recommendations for unmanned traffic management. The Task Force agreed on the description of a federated UTM system, rather than a single, government-provided solution. Also listed as areas of full support: the benefits of LAANC, a clear need for a UTM system, performance rules for service suppliers and some UTM services, the need for standards development and the concept of "government-qualified" services and service providers.

Points listed under "still requiring more discussion" included the role of a Flight Information Management System, the role and responsibilities of manned aircraft pilots in UTM, Remote ID, data protection and de-confliction strategies.

The second major agenda item focused on developing a culture of safety in the community of drone flyers. https://dronelife.com/2020/06/21/the-faas-drone-advisory-committee-heres-what-happened/

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Blue Canyon Technologies opens smallsat constellation factory Caleb Henry June 19, 2020

WASHINGTON — Smallsat builder Blue Canyon Technologies is moving employees into a recently-opened factory designed to build 100 satellites a year, and more in the future. The Crescent Satellite Constellation manufacturing facility in Lafayette, Colorado, near Boulder, opened June 3.

With this move, we transition from building a single satellite at a time in a clean room to building 10 or 20 at a time in a production line, also in a clean room, with one satellite per production line per week. Blue Canyon expects the factory to produce 50 satellites in 2021 and more in the years to follow. The factory can build satellites from cubesats up to 350-kilogram microsatellites, and will serve a mix of commercial, military and civil space customers, he said. https://spacenews.com/blue-canyon-technologies-opens-smallsat-constellation-factory/

U.S. Watched George Floyd Protests in 15 Cities Using Aerial Surveillance Zolan Kanno-Youngs June 19, 2020

From Minneapolis to Buffalo, Homeland Security officials dispatched drones, helicopters and airplanes to monitor Black Lives Matter protests.

GRAND FORKS, N.D. — The Department of Homeland Security deployed helicopters, airplanes and drones over 15 cities where demonstrators gathered to protest the death of George Floyd, logging at least 270 hours of surveillance, far more than previously revealed, according to Customs and Border Protection data.

Aircraft filmed demonstrations in Dayton, New York City; Buffalo and Philadelphia, among other cities, sending video footage in real time to control centers managed by Air and Marine Operations, a branch of Customs and Border Protection. The footage was then fed into a digital network managed by the Homeland Security Department, called “Big Pipe,” which can be accessed by other federal agencies and local police departments for use in future investigations. https://www.nytimes.com/2020/06/19/us/politics/george-floyd-protests-surveillance.html

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Lyfted Media gets off the ground with new COVID-19 disinfecting service SANDRA J. PENNECKE INSIDE BUSINESS JUN 22, 2020

VIRGINIA BEACH — Jimmy Olivero was in New York City for work when his business — and life — came to a screeching halt due to the coronavirus pandemic. In 2017, he formed his company, which primarily focuses on filming commercials, television shows and mainstream and Netflix movies.

"They shut down the NBA and the NHL, which caused us to miss out on the remainder of our contract," Olivero said. In response, Olivero pivoted to a new type of drone-related service — disinfecting. Following a test flight at Norfolk Scope this month, Lyfted Media was officially ready to provide COVID-19 cleanup of large spaces including arenas, stadiums, convention centers and city parks.

The Agras MG-1-S-8 rotor spray drone holds up to 10 liters of a non-hazardous disinfectant solution and will not harm seat materials such as leather, cloth or wood. The drone flies 5 to 10 feet above affected areas, sprays 13 to 20 feet in width and covers up to 15,000 square feet an hour. Olivero said cost, which starts at 26.5 cents per square foot, depends on the square footage of the facility.

"We know the drone is not the end all be all, but we're trying to combine new drone technology with traditional cleaning methods to open up these places faster."
https://www.pilotonline.com/inside-business/vp-ib-drone-disinfecting-0622-20200622-ymcvbqxjrjdg7f37fu2hu634ea-story.html#nws=true

HoverGames challenges coders to cook up pandemic drone solutions APPLICATION EMERGENCY SERVICES INTERNATIONAL NEWS SAM LEWIS JUNE 22, 2020

The second iteration of HoverGames has been launched, and this time it is asking coders to design drone solutions to help with the pandemic. The competition's full title is HoverGames Challenge 2: Help Drones Help Others.

It encourages developers to create drone and rover solutions for frontline support during pandemics.

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Applications must be made at the HoverGames website by July 31. The competition closes on November 30 with the winners announced the following month.

The competition is hosted by NXP Semiconductors, an American-Dutch company that specializes in connectivity solutions for the automotive and communication infrastructure markets. “The competition encourages contestants to thoughtfully consider the full scope of the difficulties facing society during a pandemic, apply new learning, and work cooperatively through the development of open source code and community-tested projects to bring forth solutions that help society prepare for future challenges.” https://www.commercialdroneprofessional.com/hovergames-challenges-coders-to-cook-up-pandemic-drone-solutions/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331401-Commercial+Drone+Professional+DNA+-+2020-06-22

European Union to provide EUR21 million for military RPAS detect and avoid research

June 22, 2020 Philip Butterworth-Hayes Civil/military integration

The European Commission has announced it will fund up to EUR21.1 million of the EUR27.4 total required for the EUDAAS (European Detect and Avoid System) function based on new sensors and processing for RPAS integration into air-traffic management programs.

“The EUDAAS project will develop and validate a 100% European detect and avoid solution for safe insertion of large military Remotely-Piloted Air Systems in the European air traffic so that RPAS can operate along with other manned and unmanned aircraft. EUDAAS will also increase the maturity of non-cooperative sensors to enable the use of RPAS in a much wider and flexible way than currently possible. The project addresses current user needs by focusing on specific cases such as the European medium altitude longer endurance RPAS.”

Consortium members comprise Saab Aktiebolag (coordinator), CIRA, Diehl Defence, DLR, Hensoldt Sensors, Indra Sistemas, Leonardo, Safran Electronics and Defence, Thales Six GTS and ONERA. https://www.unmannedairspace.info/latest-news-and-information/european-union-to-provide-eur21-million-for-military-rpas-detect-and-avoid-research/

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Wingcopter announced as Technology Pioneer by WEF Josh Spires Jun. 22nd 2020

Wingcopter is involved with various drone delivery projects from commercial, long-range factory-to-factory deliveries in Germany to life-saving humanitarian projects. Wingcopter was named a Technology Pioneer because it provides hard-to-reach communities with essential and life-saving healthcare supplies, as well as its COVID-19 pandemic work.

Susan Nesbitt, head of the Global Innovators Community, World Economic Forum, said: *We're excited to welcome Wingcopter to our 20th cohort of Technology Pioneers. Wingcopter and its fellow pioneers are developing cutting-edge technologies all over the world.*

On the South Pacific island of Vanuatu, Wingcopter set up a drone delivery network used to supply children with vaccines. The drone network services 19 remote health clinics and is supported by the Ministry of Health and UNICEF. In Tanzania and Malawi, Wingcopter showed how drones shorten delivery times from hours and even days to just minutes when compared with ground transport.

Recently, Wingcopter completed a COVID-19 response trial in collaboration with Skyports and Thales for NHS Scotland. The trial was able to provide the Isle of Mull with a faster way of testing the population for coronavirus by sending tests back and forth from the mainland by drone.

CEO Tom Plümmer will be invited to participate at WEF activities, events, and discussions throughout the year. https://dronedj.com/2020/06/22/wingcopter-announced-as-technology-pioneer-by-wef/

23Jun20

RAF 'exceeding expectations' with swarming drone development 23 JUNE 2020

Harry Lye

The Royal Air Force's swarming drones project continues to be developed by the Rapid Capabilities Office with progress during recent trials exceeding expectations in several areas. Project Mosquito is a technology demonstration and is not anticipated to result in an operational capability.

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"The Many Drones Make Light Work project explores the technical feasibility and military use of a swarm of up to twenty small unmanned aircraft vehicles, operating under the control of one individual. The project is in its final phase, delivering a structured flight evaluation program of this new capability with the successful first trials held in March 2020."

The swarming drones are designed to support manned fighters such as the Eurofighter Typhoon or F-35, confusing air defenses and allowing fighters to penetrate further into adversaries' air space. https://www.airforce-technology.com/features/raf-exceeding-expectations-with-swarming-drone-development/

Samsung trials drone-based 5G network inspection service Cho Mu-Hyun June 22, 2020

Samsung Electronics has demonstrated a new drone-based, antenna configuration measurement solution that allows engineers to inspect 5G base stations remotely. The solution allows engineers to use a smartphone to remotely control camera-equipped drones.

The drone captures photos of antennas on rooftops or base station towers, which are viewable from the smartphone and sent to the cloud. An artificial intelligence solution then verifies the rotation and tilt of the antennas, allowing engineers to determine whether they have been installed correctly at predefined optimal angles.

In the demonstration at the company's campus, the whole process took 15 minutes starting from when the drone took flight. In addition, photos and analysis data could be viewed on the engineer's smartphone in less than a minute. According to Samsung, this method is far more convenient compared to the several hours it would take an engineer to prepare and go up and down towers to measure antenna configurations. https://www.zdnet.com/article/samsung-trials-drone-based-5g-network-inspection-service/

Defense against Drone Swarms Emerges From Russian Lab Olga Tanas and Dina Khrennikova June 22, 2020

A damaged refining tower stands during repair following a drone attack in Abqaiq, on Sept. 20.

When a swarm of drones and missiles attacked Saudi oil facilities last September, knocking out 5% of global production,

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one Russian company sensed an opportunity to build up its business.

Concern Avtomatika JSC -- in Soviet times a secret military laboratory and now a state-run cybersecurity developer -- saw a greater need among oil producers to defend their facilities from aerial assault. It has since sold anti-drone systems to Russian energy companies and is in talks to add clients abroad.

The attack on Abqaiq, the world's biggest oil-processing facility, and an oil field at Khurais marked the first time multiple drones were launched long-distance in a targeted assault with such damaging consequences.

Just a couple of months later, Concern Avtomatika demonstrated its anti-drone system to various Russian oil companies. It now counts producer Tatneft PJSC and the Slavneft-Yanos refinery among its clients, and is in talks with energy giants Rosneft PJSC and Gazprom PJSC, according to Kabanov. This month it plans to finalize a contract with a foreign customer, he said, adding that it's also in discussions with companies from Asia, the Middle East and Africa.
https://www.bloomberg.com/news/articles/2020-06-22/russian-oil-gets-defense-against-drones-from-former-secret-lab

Drone-in-a-Box Technology Covered by Specialist Unmanned Aviation Insurance

23 Jun 2020 Mike Ball

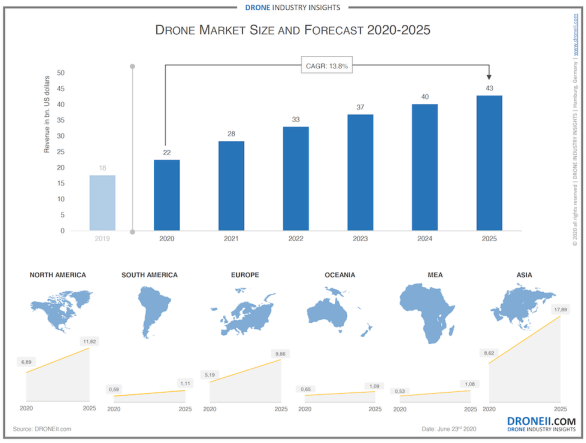
HEROTECH8 has partnered with specialist drone insurance provider Flock to cover the company's drone-in-a-box technology, allowing the system to be instantly deployed on delivery. According to HEROTECH8, the company's product is the first drone-in-a-box offering in the world to include insurance as standard.

HEROTECH8's autonomous aerial system takes off from a specialized launch pad, carries out its mission, lands and recharges, all without human intervention. The system is designed to provide persistent aerial surveillance for critical infrastructure and high-security facilities such as airports, nuclear power plants and construction sites. Equipped with thermal imagers, the drones provide security day and night and are intended to deliver a more cost-effective alternative to ground patrols.

Flock provides flexible data-driven insurance for commercial drone operations, from individual operators to large-scale fleets. Backed by insights from pilots, industry experts and local

aviation authorities, as well as real-time information and risk conditions such as environmental and weather data, Flock's policies are available by the hour, day, month or year.
https://www.unmannedsystemstechnology.com/2020/06/drone-in-a-box-technology-covered-by-specialist-unmanned-aviation-insurance/?utm_source=UST+eBrief&utm_campaign=f7bf886a62-eBrief_2020_23Jun&utm_medium=email&utm_term=0_6fc3c01e8d-f7bf886a62-111778317

The Drone Market 2020-2025: 5 Key Takeaways 2020-06-22 Lukas Schroth



To mark the release of the new update of our flagship report, here are the most important market trends that you need to know about within the drone industry in 2020-2025.

1. The Drone Market will Grow to 42.8 billion USD by 2025 From generating 22.5 billion USD in 2020, it will grow at a CAGR of 13.8% to almost double that in 2025.

2. Energy is Still the Largest Industry, but Transport is Growing Rapidly

3. Asia is Now the Biggest Regional Drone Market in the World

While in 2018 North America was generating slightly more revenue than Asia, thanks to the growth of not only China, but also Japan and India, Asia pulled ahead by the end of 2019.

4. The Effects of the COVID-19 Pandemic will be Felt by the Drone Industry

5. Drone Sales will Double from 2020 to 2025

By 2021, the commercial drone industry will be selling 1,000,000 drone units per year.
https://www.droneii.com/the-drone-market-size-2020-2025-5-key-takeaways

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Sentinel Robotic Solutions Wins Commonwealth Research Commercialization Fund Award John Robinson, Chief Operating Officer 757-824-0600 / john.robinson@srsgrp.com

Wallops Island, VA – June 18, 2020: Sentinel Robotic Solutions has been named one of 30 Commonwealth Research Commercialization Fund award recipients and has been granted $75,000 by Virginia's

Center for Innovative Technology for further development of their unmanned Sentinel Aerium aircraft.

This grant will help SRS fully commercialize Sentinel Aerium and includes funding for design engineering, purchase of materials, construction, research and marketing.

The Sentinel Aerium is an American-made, Class I, fully-autonomous UAS system boasting a winning flight time and high-weight payload. Originally designed and prototyped on Wallops Island, Virginia, the Sentinel Aerium has gone out to impress professionals from all unmanned systems (private, military, DoD). Through the funding received from this award, SRS is in a position to stimulate economic development and job creation on the Virginia's Eastern Shore. With the successful commercialization of Sentinel Aerium through the CRCF award, SRS is leading the way in engineering and aerospace opportunity on the Eastern Shore of Virginia.
https://srsgrp.com/

Integrating Drones into the New Normal Michael Hartnack JUNE 24, 2020

Prior to the coronavirus outbreak, drones and UAVs had been viewed by many as nice-to-have tools for asset management and inspection operations and as cool but complicated technology for parcel delivery, safety and emergency management. Many of the companies that had already implemented a drone platform may be able to continue their inspections with minimal impacts from the pandemic. More organizations will become interested in deploying UAV systems not only for operational and cost benefits but also as a system that remains operable in challenging times.

Ryan Citron, senior research analyst at Guidehouse Insights, discussed the potential for drones to deliver high priority goods and medical supplies as demand for delivery of consumer goods has skyrocketed. Additionally, medical campuses are deploying drones to safely deliver medical equipment such as lab tests and supplies across large campuses while minimizing personal interactions. In addition, drones are being deployed for inspection and maintenance of critical assets such as power lines, railways, oil & gas pipelines and other networks. With many utilities, oil & gas companies, and transportation providers suffering revenue stream interruptions as a result of the pandemic, the conversion of inspection operations to drones is an option to reduce costs, improve efficiency and broaden overall inspection capabilities, all while

minimizing interpersonal interactions. https://www.commercialuavnews.com/energy/integrating-drones-into-the-new-normal

Drone Delivery Canada confirms healthcare-focused agreement with DSV Canada APPLICATION DELIVERY HEADLINE NEWS ALEX DOUGLAS JUNE 24, 2020

The agreement will be used to deploy DDC's drone delivery platform, with the intent for DSV to deliver healthcare related cargo from DSV's warehouse in Milton, Ontario to DSV customers locally. DDC will deploy its Sparrow cargo drone with cargo drop capability.

At the destination, the Sparrow will hover at a lowered altitude, drop untethered cargo in a designated area shared by multiple DSV transactional customers, then return to DSV's DroneSpot. The route is approximately 3.5km, and flights will be remotely monitored by DDC from its Operations Control Centre located in Vaughan, Ontario.

Michael Zahra, president and CEO of DDC, said: "We are currently flying hundreds of successful flights per month at DSV for their first route, and we are pleased to announce a second paid route. https://www.commercialdroneprofessional.com/drone-delivery-canada-confirms-healthcare-focused-agreement-dsv-canada/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-331514-Commercial+Drone+Professional+DNA+-+2020-06-24

25Jun20

Testing UTM to a Level Never Before Achieved: ANRA and Switch Score FAA Contract Miriam McNabb June 24, 2020

ANRA Technologies is a global unmanned traffic management leader. Las Vegas-based Switch has expertise in data centers and technology solutions. They will work with the Nevada Institute for Autonomous Systems (NIAS) to demonstrate and validate unmanned traffic management (UTM) technology. ANRA, Switch and NIAS are the recipients of a Broad Agency Announcement contract by the FAA for $848,685 towards an overall contract of $1.79 million.

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"ANRA and Switch will leverage hybrid cloud computing mechanisms, a UTM platform, data-driven analytics and command centers to simulate thousands of simultaneous UAS flights," says an ANRA press release. The project will "evaluate performance thresholds, mitigation strategies, operational constraints and system requirements for scalable operation of commercial small UAS. It will also provide insight into redundancy, bandwidth, cost estimates, computer and data storage requirements to operate the UTM safely and securely on a national scale in a scalable and cost-effective manner." https://dronelife.com/2020/06/24/testing-utm-to-a-level-never-before-achieved-anra-and-switch-score-faa-contract/

Drones at Airports: Acecore Demonstrates Delivery of Airplane Parts at Schiphol [VIDEO] Miriam McNabb June 24, 2020

Netherlands-based Acecore Technologies is proving that drones can be valuable assets for the commercial airline industry.

While Amsterdam's Schiphol airport lies relatively quiet during the current COVID-19 crisis, airport and government airspace authorities have seized the unique opportunity to evaluate commercial drone operations. "Working together with Dutch Drone Delta, Schiphol aimed to test the technical as well as the social aspect of drones flying at an active airport," says an Acecore press release. "Under the temporary exemption, drones were allowed to fly in the CTR to test applications such as runway inspection and delivery of airplane parts across the airport. The control tower oversees everything that goes on and is able to guide the licensed drone operators to a safe mission."

Deliveries of airplane parts by drone represent enormous savings in time – and money – for airlines. While airplane parts must currently be delivered by car, maneuvering from the maintenance storage sites through the airport to the mechanics, drones can fly as the crow flies – cutting the delivery time dramatically. https://dronelife.com/2020/06/24/the-case-for-drones-at-airports-acecore-demonstrates-drone-delivery-of-airplane-parts-at-schiphol-video/

Video: Dronisos produces gorgeous indoor world record with 200 autonomous drones Scott Simmie Jun. 25th 2020

One of the leading companies providing choreographed drone light shows has established what is says is a new world record. Dronisos just flew 200 synchronized drones during an indoor

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performance, besting the previous world record of 160. The light show took place on June 24 in Italy, as part of celebrations for the San Giovanni festival.

On its website, Dronisos explains that it is capable of flying up to 1,000 drones at a time in an outdoor space. The company also has a video compilation page, highlighting some of the many projects it has carried out. It's flown in France, Britain, the United States, the Middle East, and even once created the illusion of flying Oreo cookies for a promotion:

Getting a swarm of drones to behave in precise patterns requires more complex programming than dialing in waypoints. Part of the secret is that Dronisos sets up beacons around the area where a performance will be held. Those beacons transmit signals picked up by a special "tag" that's been added to each drone, which then relays the precise position of each UAV in space. That allows the overall programming software to constantly ensure each drone is precisely where it's supposed to be during a performance.

The price for an indoor show *starts* at €10,000 ($11,200 US) and can climb to 10 times that amount. For outdoor shows, prices being at €75,000 (about $84,000 US).

You want to see the record-setting flight? Here it is: 200 drones, indoors, at once.
https://dronedj.com/2020/06/25/video-dronisos-produces-gorgeous-indoor-world-record-with-200-autonomous-drones/

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US police using Chinese drones are 'at risk' of data breach, DHS warns Steven Nelson June 25, 2020

The department's Cybersecurity and Infrastructure Security Agency expressed its concern in a letter this week to House Judiciary Committee Chairman Jerry Nadler (D-NY).

DJI is the world's top commercial drone maker. The company loaned aircraft to US police departments to monitor residents during the coronavirus pandemic. CISA Director Christopher Krebs wrote to Nadler that "any information collected by DJI drones should be considered at risk and protected from inadvertent disclosure. Additionally, departments are discouraged from using DJI donated drones for non-COVID-19 law enforcement operations that involve the collection of sensitive information."

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The NYPD uses at least 14 drones made by DJI, according to a December 2018 web entry. On April 7, the Elizabeth, NJ, police department wrote on Facebook that it would be using loaned DJI drones to locate social gatherings and issue $1,000 fines.

Krebs wrote that CISA partnered with the Federal Emergency Management Agency "to require state and local governments to review and acknowledge CISA guidance before purchasing foreign manufactured UAS with Federal grant funding." https://nypost.com/2020/06/25/us-police-using-chinese-drones-at-risk-of-data-breach-dhs/

MQ-9A Reaper demonstrates new automatic takeoff and landing abilities Garrett Reim 25 June 2020

As part of a modernisation contract with the US Air Force, enhancements to the UAV include the ability to divert to another airfield, fly in stronger crosswinds and land with greater maximum weight.

"This achievement will enable operational MQ-9A's to land at alternate airfields, on their own, in case of inclement weather, changing mission requirements or damaged runways," says General Atomics president David Alexander. "These upgrades will improve mission-effectiveness tremendously."

The ability of MQ-9As to land at alternate airfields would not require a ground control station to be present locally, but would instead use satellite communication controls.

"With the divert landing enhancement, the remote pilot can enter the new landing area coordinates to automatically land or the pilot can overfly and self-survey the divert airfield's runway using the MQ-9A's multi-spectral electro-optical/infrared sensor to obtain coordinates for automatic landing," says General Atomics. "Once uploaded to the mission profile, the aircrew enables the [automatic take-off and landing] system, which allows the aircraft to maneuver itself into a landing pattern and make the automatic landing.

Without needing a ground control station at a landing strip, the UAV could be flown long distances to its area of operations where it could be armed and fueled by local non-specialized personnel. https://www.flightglobal.com/military-uavs/mq-9a-reaper-demonstrates-new-automatic-takeoff-and-landing-abilities/139010.article

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