UAS and SmallSat Weekly News

Contents

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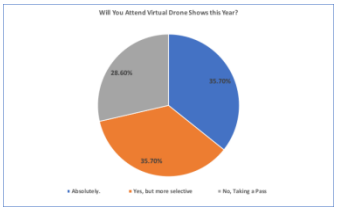
Virtual Drone Shows – Who Will Attend? The DRONELIFE Minute Survey Harry McNabb August 13, 2020

Virtual drone shows offer some great advantages for attendees. They're less expensive; they don't require travel; and they provide a more flexible format than an in-person show. They're still offering great speakers and sessions. But who will actually attend? We asked our followers in a DRONELIFE Minute Survey if they'll still be going to the shows they usually attend – or if they might go to more of them now that they don't involve a plane ride.



We asked our followers one question: Will you be attending virtual drone shows this year? Here's what respondents to our survey said.

- Absolutely. Cheap & Easy: 35.7%
- Yes, but more selective: 35.7%
- No, Taking a pass: 28.6%

While some people will be taking a pass this year until they can meet and greet in person, the vast majority will be going to at least some of the events.
https://dronelife.com/2020/08/13/virtual-drone-shows-who-will-attend-the-dronelife-minute-survey/

Student using drones to sample water from algal blooms Josh Spires Aug. 14th 2020

Will Reckling, a doctoral student at North Carolina State University's Department of Marine, Earth, and Atmospheric Sciences is using drone technology to collect water samples from harmful algal blooms off the North Carolina coast. Reckling equipped his drone with a mesh harness dangling 20 feet below the drone with two plastic tubes that fill with water once lowered into the algal blooms.

Along with using drones to collect water samples, they were also used to find and document rare plants on mountain tops. Reckling has been working with assistant professor Ryan Paerl who has been able to learn a lot from the partnership in terms of drone technology, the image data it produces, and the biology of the algal blooms.

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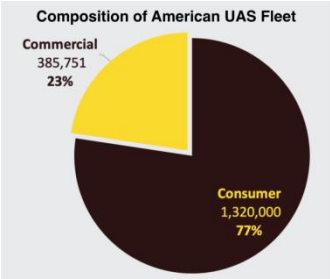
https://dronedj.com/2020/08/14/student-using-drones-to-sample-water-from-algal-blooms/#more-33966

A snapshot of the drone industry in the United States Scott Simmie Aug. 14th 2020



As Drone Analyst's Head of Research, David Benowitz looked at comparing the New FAA data and American UAS Industry Performance Since 2016.

When you combine commercial and recreational pilots, it's believed some 1.1 million people in the US are drone pilots flying an estimated 1.7 million drones.

This growth has been led by the commercial drone segment, with the fleet growing by 39% from 2018 to 2019. In comparison, the consumer drone market has grown at a moderate 6% over the same time period. According to the Drone Analyst report, it's clear what market segments are growing. And while the consumer side is still growing, that rate of growth has slowed substantially when it comes to new drone purchases.

Realistically, this only makes sense. The majority of people who really want to buy drones for recreational purposes have likely done so by now. And when these consumables run anywhere from $500 to $2000+ for models that recreational pilots might buy – you don't tend to replace them that often. https://dronedj.com/2020/08/14/a-snapshot-of-the-drone-industry-in-the-united-states/

CyberHawk drones will help prevent California wildfires for utility company Josh Spires Aug. 13th 2020

The contract with the company was awarded to CyberHawk earlier this year and will focus on supporting the wildfire prevention and reliability campaign. The drones will be inspecting thousands of lattice steel towers and wood electricity poles. The drones will also collect data around bushes and shrubs that could potentially catch fire if they were to meet the electricity cables.

The drones will also allow for a substantial cut in inspection costs using current methods such as helicopters and improve efficiency as the drones can be deployed within minutes, do the job

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and then land, all within a short timeframe. The drones also cut down on the amount of manpower needed to complete inspections.

Using the drones also provides a better look at issues that could be hard to find. They will be equipped with a zoom camera and thermal camera, making all faults almost impossible to miss. https://dronedj.com/2020/08/13/cyberhawk-drones-will-help-prevent-california-wildfires-for-utility-edison/

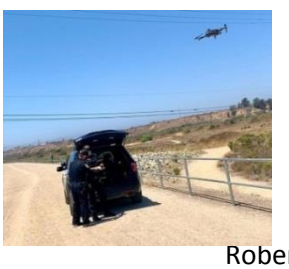
SPH Engineering and Eye4Software Partner for Bathymetric and Hydrological Data Collection August 14, 2020 News

The integrated system for bathymetry consists of a drone with a single or dual-frequency echo sounder. The full integration is ensured with the flight planning and control software UgCS and a special onboard software by SPH Engineering. Hydromagic, a professional hydrographic survey package by Eye4Software, is applied to data gathered using an echo sounder attached to the drone.

NMEA 0183 with bathymetric data and SEG-Y files with full echo sounder data can be processed with Hydromagic to produce depth maps, contour maps and 3D models.

Earlier this year SPH Engineering announced the launch of a drone integrated with an echo sounder, a new product for bathymetric surveys of inland and coastal waters. This method of data collection is time- & cost-efficient and suitable for mapping, measuring and inspections, as well as environmental monitoring. https://uasweekly.com/2020/08/14/sph-engineering-and-eye4software-partner-to-advance-bathymetric-and-hydrological-data-collection/?utm_source=rss&utm_medium=rss&utm_campaign=sph-engineering-and-eye4software-partner-to-advance-bathymetric-and-hydrological-data-collection&utm_term=2020-08-15

Santa Maria Police catch stabbing suspect in first-ever drone arrest Dave Minsky Aug 12, 2020



The Santa Maria Police Department deployed a drone Saturday to assist officers in apprehending

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Adam Martinez, 35, who fled into the Santa Maria riverbed after allegedly stabbing his girlfriend.

Police weren't successful in locating Martinez on Friday night but returned the next day to deploy the drone once more. This time, they conducted a methodical search of the bridge and within 15 minutes spotted Martinez hiding under the bridge. The drone followed Martinez as he walked back to an arrest team waiting for him. He was booked into Santa Barbara County Jail on suspicion of attempted murder, false imprisonment, physical injury to a spouse or co-inhabitant and parole violations. https://santamariatimes.com/news/local/crime-and-courts/santa-maria-police-catch-stabbing-suspect-in-first-ever-drone-arrest/article_fdce7c1c-ce93-5066-aa4c-3bef37f3b946.html

Virginia launches Flight Information Exchange to improve drone safety TOM STONE AUGUST 13, 2020 ASSET MANAGEMENT, PLANNING, TESTING, R&D

Virginia Department of Transportation is one of the key stakeholders in a new project to enable sharing information about unmanned aerial systems, to address key safety and policy concerns while keeping the airspace open, secure and integrated within Federal Aviation Administration control.

The Virginia Flight Information Exchange is a platform for state and local government agencies to publish and share advisory information with each other, UAS Service Suppliers, unmanned system operators and the public to promote transparency and public safety. The pilot program will evaluate the benefits of information sharing, inform thoughtful regulation, and demonstrate a state-supported approach to UAS communications and coordination.

The pilot program was developed through a public-private collaboration with the Virginia DOAV, CIT and its Virginia Unmanned Systems Center, VDOT, and Advanced Technology Applications, a data science and engineering company in Northern Virginia.

The Virginia Flight Information Exchange will be the first state-sponsored Supplemental Data Service Provider to exist in FAA's UAS Traffic Management, which is an ecosystem of infrastructure and protocols enabling the management of low- altitude drone operations. https://www.traffictechnologytoday.com/news/asset-management/virginia-launches-flight-information-exchange-to-improve-drone-safety.html

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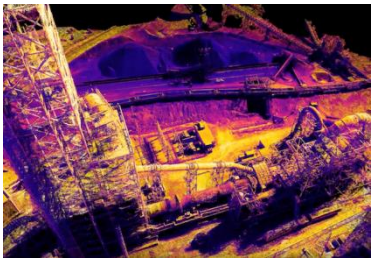
Spike in military spending to give thermal imaging market boost to $5 billion by 2027 BUSINESS FINANCIAL TECHNOLOGY SAM LEWIS AUGUST 14, 2020



The report, from market research specialist Reports and Data, said the market was valued at $3.2 billion last year. A CAGR of 6% will see it hit $4.99 billion in 2027, the company predicted.

This is due to increasing military spending around the world in a bid to squash rising terrorist activity. It also blamed more general geopolitical tensions for the rise in military spending.

Thermal imaging helps armed forces to protect borders during nightfall and extreme weather. "The demand is due to the ability of the product to work in all weather conditions irrespective of the time. They are used in surveillance of the border, in ship collision avoidance, law enforcement and structural health monitoring of aircraft."
https://www.commercialdroneprofessional.com/spike-in-military-spending-to-give-thermal-imaging-market-boost-to-4-billion-by-2027/

Drones with Data Intelligence Take Wildfire Prevention to New Heights Susan GalerBrand Contributor Aug 11, 2020

As the United States wildfire season continues to lengthen, electric utilities could find new value from drones backed by advanced analytics to help prevent disasters. Drones can deliver a literal birds-eye view of potential problems – encroaching vegetation, damaged equipment, nearby hazards – when there's still plenty of time to fix things. In this year of the pandemic, drones can also help keep people safe, going into the field to gather data, while human experts stay safely inside but receive high-quality data for better business decisions.

One co-innovation example from SAP and Intel uses drones to collect real-time image data from electric equipment in the field. Deep learning algorithms in the Intel Insights Platform identify and prioritize high-risk areas from the images captured by drones across the poles, wiring, transformers, and other equipment that carries electricity across transmission and distribution lines. Experts at the utility could then log into the cloud system for a top down view of the findings, which are color-coded by equipment type and risk level.
https://www.forbes.com/sites/sap/2020/08/11/drones-with-data-intelligence-take-wildfire-prevention-

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to-new-heights/?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=a3e1cd8a45-EMAIL_CAMPAIGN_2020_08_16_12_06&utm_medium=email&utm_term=0_2ecada6f57-a3e1cd8a45-33089729#6acbbf52390e

FAA announces $3.3 million for Mississippi State coalition researching drones in emergencies Allison Matthews

STARKVILLE, Miss.—Mississippi State is the lead university for the FAA's Center of Excellence for Unmanned Aircraft Systems, also known as the Alliance for System Safety of UAS through Research Excellence, or ASSURE. The coalition includes 25 renowned research universities and more than 100 additional government and industry partners.

Additionally, MSU's Raspet Flight Research Laboratory recently was designated as the FAA's UAS Safety Research Facility, placing the research center at the helm of studying and developing safety and certification standards.

Mississippi State is receiving a $1.3 million grant to provide program management which includes tracking financial information for ASSURE university project activities; reviewing and vetting all project-related documentation prior to submission to the FAA; hosting and facilitating all FAA-required meetings; and outreach to government, industry and academia.
https://www.msstate.edu/newsroom/article/2020/08/faa-announces-33-million-grants-mississippi-state-led-assure-coalition?utm_source=Airborne+International+Response+Team+%28AIRT%29+News+List&utm_campaign=a3e1cd8a45-EMAIL_CAMPAIGN_2020_08_16_12_06&utm_medium=email&utm_term=0_2ecada6f57-a3e1cd8a45-33089729

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Urban Air Mobility in Europe: EHang to Fly in Austria Miriam McNabb August 14, 2020

EHang, the world's leading autonomous aerial vehicle (AAV) platform, announced progress under its urban air mobility pilot city partnership with Linz, Austria.

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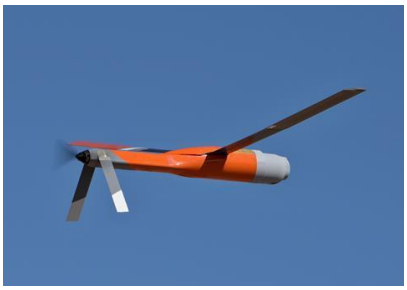
Aerospace company FACC and LINZ AG have expertise in public transportation and charging infrastructure. With EHang, they plan to make Linz a UAM pilot city. The idea is to implement both passenger flights and drone delivery with drone taxis throughout the city. While the partners plan to start trial flights soon, they will start construction on an infrastructure of vertiports in 2021. Routes will be designed to travel over uninhabited areas. https://dronelife.com/2020/08/14/urban-air-mobility-in-europe-ehang-to-fly-in-austria/

US Army outlines recon and electronic warfare missions for air launched effects

Garrett Reim 14 August 2020

The service is soliciting ideas from companies as part of a request for information posted online on 12 August.



Air launched effects are a form of unmanned air vehicle that the US Army envisions launching from aircraft, in particular its Future Attack Reconnaissance Aircraft and its MQ-1C Gray Eagle UAV. The service wants to use the UAVs for multiple missions behind enemy lines, including intelligence, surveillance and reconnaissance, electronic warfare and loitering munition strikes.

The service wants air launched effects to detect, identify, locate, report and deliver lethal and non-lethal attacks against enemy targets. Some of the drones could also be used as decoys. Targets might include surface-to-air missile batteries, radar installations, command, control and communications capabilities or logistics infrastructure.

The US Army envisions three classes of air launched effect: “ALE Small” would be up to 4.5kg (10lb) and have a 20W to 50W power source; “ALE Large” would be up to 13.6kg and have a 50W to 100W power source; and, a “Special Missions” variant would be up to 45.4kg and have a 100W to 150W power source. https://www.flightglobal.com/military-uavs/us-army-outlines-recon-and-electronic-warfare-missions-for-air-launched-effects/139780.article

In Aerial Combat Over Lake Michigan, Eagles: 1; Drones: 0 August 14, SCOTT NEUMAN

The eagle has landed, but EGLE — Michigan's Department of Environment, Great Lakes and Energy — was not so lucky.

Last month, Hunter King, one of the department's drone pilots, was using a quadcopter to photograph the Lake Michigan coast to track shore erosion.

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Suddenly, he started getting warnings on his screen — lots of them — including one indicating that a propeller had come off the drone. When he glanced up, the drone was gone and a suspicious looking bald eagle was soaring away.

The evidence might seem circumstantial – and it is — but King wasn't the only witness: EGLE's website says a nearby couple saw the eagle strike something but were surprised to find out it was a drone.

The couple helped King in a fruitless search for the $950 quadcopter. Days later, location data pulled from the iPad pinpointed the crash-site — about 150 feet offshore in four feet of water. https://www.npr.org/2020/08/14/902646692/in-aerial-combat-over-lake-michigan-eagles-1-drones-0

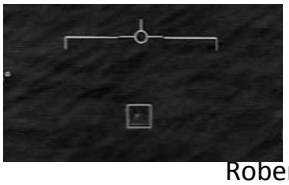
XAG drones step up for Australia's younger agricultural workforce for winter crops AGRICULTURE APPLICATION BUSINESS ALEX DOUGLAS AUGUST 17, 2020

Faced with the expanded size of sown areas in Australia, XAG works with drone entrepreneurs from Queensland to provide autonomous spraying solutions for the difficult-to-access field areas of horticulture crops, including macadamia, strawberry and potato, while spreading seeds to restore the overgrazed pasture in response to climate change.

The Australian Bureau of Agricultural and Resource Economics and Sciences has forecast the winter crop yield to be 44.5m tonnes in 2020–21, which is 11% above the average annual level for the past ten years.

XAG Australia is working with Jamin Fleming from Oztech Drones in Bundaberg, south-east Queensland, to provide aerial treatment for pests, weeds, and crop diseases. Since July, Fleming has been collaborating with local fruit growers, such as Redrock and Suncoast Gold Macadamias, on a series of trials to apply fungicides and fertilizers on macadamia trees with XAG's agricultural drones. https://www.commercialdroneprofessional.com/in-depth-xag-drones-step-up-for-australias-younger-agricultural-workforce-for-winter-crops/?utm_medium=push&utm_source=notifications

Pentagon launches task force to study UFO sightings TAL AXELROD - 08/14/20



The Pentagon said in a statement that Deputy Defense Secretary David Norquist approved the establishment of an Unidentified Aerial

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Phenomena (UAP) Task Force which will fall under the Navy. "The mission of the task force is to detect, analyze and catalog UAPs that could potentially pose a threat to U.S. national security."

"This includes examinations of incursions that are initially reported as UAP when the observer cannot immediately identify what he or she is observing," the Pentagon added. The agency first confirmed that it operated a program working to identify UFOs in 2017.

The task force's formation follows the release of videos from the Department of Defense of encounters between U.S. pilots and UFOs in April, noting that explanations for the flying objects or aircraft remain unclear. https://thehill.com/policy/defense/512132-pentagon-launches-task-force-to-study-ufo-sightings

New global UAM/AAM trade association for communities and industry launches

August 11, 2020 Jenny Beechener Emerging regulations, UAS traffic management news, Urban air mobility

The Civic Air Transport Association (www.CIVATAglobal.org) has started work today supporting rural and city authorities to assess, manage and adopt increasingly complex unmanned air system services by creating a knowledge transfer community of governing bodies and the aviation industry.

"CIVATAglobal is the global trade association of the advanced air mobility and urban air mobility sectors," says the association's Director General Andrew Charlton, "bringing together cities and industries in a single global community. CIVATAglobal has an ambitious work program so that from day one members will be engaged in presenting a common voice to regulators and policy makers, developing guidance material, organizing events and identifying and promulgating best-practice procedures in areas such as community engagement and environmental protection.

"The COVID-19 pandemic has in many ways been a catalyst for the drone industry, highlighting the potential for drones to deliver vital medical supplies and help sanitize public areas in a cost-effective and safe way." https://www.unmannedairspace.info/emerging-regulations/new-global-uam-aam-trade-association-for-communities-and-industry-launches/

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THOR VTOL Completes Environmental Qualification Tests Ahead of Delivery of 1,000 Units August 16, 2020 News

Elbit Systems' THOR, a multi-rotor Vertical Take-off and Landing Unmanned Aircraft System, completed environmental qualification tests ahead of the delivery of more than a thousand units to an army in Southeast Asia. As announced on October 6, 2019, the Company was awarded a $153 million contract to provide a networked UAS array to an army in Southeast Asia.

The environmental qualification tests measured operational durability under a range of extreme environmental conditions and its capability to withstand the physical stress requirements under MIL-STD-810. The tests demonstrated the capability to maintain operability in temperatures varying from minus 40ºC up to 65ºC , withstand hard gusting rain and rough vibrations and resist penetration and damage from blowing sand and dust.

It is designed for surveillance and reconnaissance missions over land and sea. Electrically propelled, THOR is capable of carrying up to three kg of payloads and has a flight duration capability of 75 minutes of operation, a maximal range of 10 kilometers and a flight ceiling of 2,000 ft. https://uasweekly.com/2020/08/16/thor-vtol-completes-environmental-qualification-tests-ahead-of-delivery-of-1000-units/?utm_source=rss&utm_medium=rss&utm_campaign=thor-vtol-completes-environmental-qualification-tests-ahead-of-delivery-of-1000-units&utm_term=2020-08-17

18Aug20

Latest SpaceX Starlink satellite launch sets another flight record Eric Mack Aug. 17, 2020

SpaceX on Tuesday sent another batch of Starlink broadband satellites on their way to orbit from Florida, along with a few Earth-observing metal birds, and made history once again in the process.

The Falcon 9 booster that Elon Musk's space company used for the ride share had previously flown on three Starlink missions and on two commercial satellite delivery gigs. That means its flight this week was its sixth, a new mark for a single orbital rocket.

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The Falcon 9 first stage actually set two records on the same day, by first launching for the sixth time and then landing for the sixth time a short while later.

In addition to the historic launch and landing, SpaceX will try to catch both halves of the nose cone that protects 58 Starlink satellites and three satellites belonging to Earth-imagery company Planet as they blast through the atmosphere. The fairing pair used Tuesday is also experienced in flight, having been used and recovered on an earlier Starlink mission. https://www.cnet.com/news/tuesdays-spacex-starlink-satellite-ride-share-will-set-a-new-record/

Law Enforcement Drones: A Small U.S. Town Offers a Case Study Miriam McNabb August 17, 2020

The town of Linn, Wisconsin worked with a consulting firm to start a drone program – and to measure the results. Here's what they found.

The Town, working with Adorama Business Solutions, chose three different drone models: DJI Inspire, DJI Mavic 2 Enterprise Dual, and DJI Spark.

To streamline the team's development and ensure its quality, Chief James Bushey created an FAA-approved curriculum which all of the town's officers follow to earn certifications. The drones are used to deal with search and rescue operations surrounding the lake; to survey road damage; and to get overhead images of buildings and structures that require maintenance and repairs. "The drones have enabled Linn police officers to reduce both the amount of time and manpower needed to respond to situations by 50%."

Additionally, during the COVID-19 pandemic, the department has been able to utilize the drones to patrol its large jurisdiction while maintaining social distancing and reducing the number of officers in the field. https://dronelife.com/2020/08/17/law-enforcement-drones-a-small-u-s-town-offers-a-case-study/

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Belgium signs for unmanned SkyGuardian fleet Craig Hoyle17 August 2020

Belgium's acquisition of MQ-9B SkyGuardian unmanned air vehicles has been advanced, with General Atomics Aeronautical Systems receiving a contract worth almost $189 million.

Brussels earlier this year announced plans to pull forward the planned retirement of its Israel Aerospace Industries B-Hunter UAVs, to enable its military to focus on the SkyGuardian's introduction from 2023.

General Atomics in July also received an $85 million order from the UK to produce a first batch of three SkyGuardian-derived Protector RG1 UAVs and three GCS, for delivery to the Royal Air Force.

Also referred to as the Certifiable Predator B, the SkyGuardian will be equipped with sense and avoid technology to enable the medium-altitude, long-endurance type to be flown in non-segregated airspace. https://www.flightglobal.com/defence/belgium-signs-for-unmanned-skyguardian-fleet/139794.article

19Aug20

Sceye Inc. to build stratospheric airships in NM KEVIN ROBINSON-AVILA / JOURNAL STAFF WRITER Tuesday, August 18th, 2020

ALBUQUERQUE, N.M. — Aerospace startup Sceye Inc. will soon build helium-filled airships in New Mexico that, by 2022, could hover over remote places across the state to provide broadband connectivity and environmental monitoring services.

The state Economic Development Department has pledged $5 million in Local Economic Development Act funding to help the company establish a production facility here, bringing 140 new manufacturing and engineering jobs to the state.

The company, which launched in 2014, has already been developing and testing its airships at the Roswell International Air Center and the Moriarty Municipal Airport since 2017. It has invested more than $50 million to create a stratospheric airship built to hover for long periods of time at 65,000 feet up. https://www.abqjournal.com/1487318/sceye-inc-to-build-stratospheric-airships-in-nm.html

Drone Company on Major Mission to Create 1 Million New US-based Jobs August 18, 2020

Earlier this summer, Aquiline Drones, the fastest growing US drone and cloud company, launched a new employment initiative called Flight to the Future to help pilots and the general public re-boot their careers by becoming certified commercial drone operators. This is to fulfill the increasing demand for commercial drone services nationwide. Now, the organization has announced a massive corporate office expansion, as well as a myriad of strategic manufacturing partners to make its mission of adding more than 1 million drone-based jobs to the US economy a tangible reality.

Aquiline Drones currently has 16 staff members working at its downtown Hartford headquarters and 3 large external technology teams strategically dispersed, mainly in the US. By the end of 2020, Aquiline Drones Founder and CEO Barry Alexander says that he will outfit the Hartford location with an additional 54 management, business and production professionals bringing its total Hartford crew to 70. In addition, Alexander is building the nation's first public drone showroom where visitors can witness the entire production cycle of drones. At its completion, AD will occupy nearly 30,000 square-feet for all business operations at its current location.

"Our massive US expansion is aptly timed and will enable quick-start production of our new and superior line of commercial and industrial drones, dubbed "Spartacus", while we simultaneously finalize numerous manufacturing licensing agreements with industry-leading Drone Vault of France and Aerialtronics of the Netherlands," said Alexander.
https://uasweekly.com/2020/08/18/drone-company-on-major-mission-to-create-1-million-new-us-based-jobs/?utm_source=rss&utm_medium=rss&utm_campaign=drone-company-on-major-mission-to-create-1-million-new-us-based-jobs&utm_term=2020-08-18

Avidrone Aerospace selects Iris as exclusive detect-and-avoid provider

APPLICATION ALEX DOUGLAS AUGUST 19, 2020

The partnership allows Avidrone customers to conduct Beyond-Visual-Line-of-Sight flights for commercial delivery operations.

Iris Automation's Casia is the first onboard DAA solution to enable commercial BVLOS operations for Unmanned Aircraft Systems. The system allows a UAS to see and react to the aviation environment

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around the aircraft. Casia detects other aircraft, uses computer-vision algorithms to classify them, makes intelligent decisions about the threat they may pose to the drone, triggers an alert to the pilot in command and automates maneuvers to safely avoid collisions.

The partnership opens a vast number of new use-cases to commercial airspace applications seeking new ways to move goods, resupply, and survey assets by drone.

CEO of Avidrone, Scott Gray, said, "This partnership further removes red-tape to a host of new commercial operations desiring the full BVLOS capabilities that our tandem rotor, heavy-lift drones are specifically designed for." https://www.commercialdroneprofessional.com/avidrone-aerospace-selects-iris-as-exclusive-detect-and-avoid-provider/

Agencies Issue Advisory on Drone Detection Tech Kate O'Connor August 18, 2020

The Department of Justice, Federal Aviation Administration, Department of Homeland Security and Federal Communications Commission have issued a joint advisory designed to clarify federal laws and regulations potentially applicable to "the use of capabilities to detect and mitigate threats posed by Unmanned Aircraft Systems operations." The "Advisory on the Application of Federal Laws to the Acquisition and Use of Technology to Detect and Mitigate Unmanned Aircraft Systems" addresses DOJ-enforced provisions of the U.S. criminal code along with laws and regulations administered by the FAA, DHS and FCC. According to the agencies, the advisory was prompted by high commercial demand for UAS detection and mitigation.

"As the number of drones in our airspace continue to rise, it is unsurprising that the availability of counter-drone technologies has likewise increased," said Deputy Attorney General Jeffrey Rosen. "Because these technologies may be presented for sale without a full discussion of important legal requirements, this Advisory steps forward to provide an outline of the relevant legal landscape." https://www.avweb.com/recent-updates/unmanned-vehicles/agencies-issue-advisory-on-drone-detection-tech/?MailingID=425

UK police use thermal drone to monitor close-contact party Scott Simmie Aug. 19th 2020

The UK's Greater Manchester Police department has just released drone footage that shows a new use-case scenario: Using a thermal camera to monitor a large gathering

breaking local rules requiring social distancing due to COVID-19.

That's precisely what happened over the weekend where a massive party gathering saw very large numbers of young people gathering. This was a perfect scenario to spread COVID-19.

Welcome to the sardine party. Would you like COVID with that pint?

On Saturday, August 15, Greater Manchester Police received a call that there was a large residential house party going on. When they arrived, they estimated there were about 200 people at the party. And that's not all. It wasn't long before those partying were aware of the police presence.

Health officials have social distancing regulations in place for a reason. People in this kind of situation are at far greater risk of spreading – or catching – the virus. This was a particularly clear violation of those rules, and so Greater Manchester Police sought a three-month closure order. That would, in effect, ban the premises to everyone except the property owner and immediate tenants. Just a couple of days after this incident, a judge granted that request.
https://dronedj.com/2020/08/19/uk-police-use-thermal-drone-to-monitor-close-contact-party/

20Aug20

Kepler signs launch agreement with Exolaunch Debra Werner August 19, 2020

SAN FRANCISCO — Kepler Communications announced a launch agreement Aug. 18 with Exolaunch of Germany for two cubesats scheduled for flight in September on a Russian Soyuz rocket rideshare mission.

Under the contract, Exolaunch will provide launch, mission management, integration and deployment services for Kepler's two six-unit XL cubesats built by the University of Toronto Institute for Aerospace Space Flight Laboratory.

Toronoto-based Kepler plans to send dozens of satellites into a constellation to transfer data traffic to and from ships, oil rigs, farm machinery and industrial equipment. Kepler arranged the Soyuz ride through Innovative Space Logistics, a Dutch launch broker.
https://spacenews.com/kepler-exolaunch-contract/

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Applied Technology Associates Unveils LOCUST Laser Weapon System for UAS Threats August 19, 2020 Counter UAS News

ATA unveiled LOCUST, a Low-Cost Counter-Unmanned Aerial System for Targeting, at the 2019 Counter UAS Summit in August and will showcase LOCUST at AUSA's Annual Meeting and Exposition, October 14-16, 2019 in Washington D.C. LOCUST will also be participating in U.S. government field experiments in October and November.

LOCUST provides a capable and cost effective defense against low cost asymmetric unmanned aerial system threats. It detects and identifies threats using active and passive radio frequency and electro-optical infrared sensor subsystems, and it negates the threats using intelligent electronic attack and high energy laser effectors.

Each LOCUST delivers a layered detection and identification capability in a fixed emplacement configuration or on a mobile platform with shoot-on-the-move capability.
https://uasweekly.com/2020/08/19/applied-technology-associates-ata-unveils-locust-laser-weapon-system-for-detecting-identifying-and-mitigating-uas-threats/?utm_source=rss&utm_medium=rss&utm_campaign=applied-technology-associates-ata-unveils-locust-laser-weapon-system-for-detecting-identifying-and-mitigating-uas-threats&utm_term=2020-08-20

DJI Matrice 300 autonomously flies in underground mine sites Josh Spires Aug. 20th 2020

In a world's first, DJI's Matrice 300 has autonomously surveyed two underground Australian mine sites testing 3D LiDAR technology. The new drone technology was being tested by Emesent which has been developing its simultaneous localization and mapping (SLAM) autonomous flight system Hovermap.

The two drone flights took place at the Round Oak Minerals' Mount Colin underground copper mine and Glencore's George Fisher underground mine in northern Queensland, Australia. The flights mark a milestone for Emesent who provided its Hovermap software and LiDAR hardware for use with the newly released Matrice 300 drone.

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A flight like this above ground wouldn't usually be a big deal as there aren't as many space restrictions and you have daylight to help with capturing data and flying safely. The fact that the drone is able to fly underground with very little to no light without crashing is impressive.

Below is a short video of the drone in action capturing data with the onboard LiDAR scanner. The drone is flying autonomously and is able to make its way around the dim mine with no issue. The data captured by the drone is also shown in the video.
https://dronedj.com/2020/08/20/dji-matrice-300-autonomously-flies-in-underground-mine-sites/

21Aug20

UAVOS presents concept SumoAir urban air taxi APPLICATION BUSINESS DELIVERY INTERNATIONAL NEWS ALEX DOUGLAS AUGUST 21, 2020

The all-electric, tandem rotor helicopter concept consists of a five-seater passenger including the pilot cabin that can be attached to either a car or a flight module.

The helicopter will be operated both manually and autonomously. The project is a part of UAVOS' R&D efforts to explore and understand the fundamental technologies behind electric aircraft and the urban air mobility market.

The SumoAir unmanned helicopter has a tandem rotor configuration with two large horizontal rotors mounted one in front of the other. The UAV features two redundant high – lift propulsion units. Their three – bladed rotors are driven by two electric motors at around 520 rpm to ensure a low acoustic footprint.

The air taxi concept has additional safety advantages such as autorotation flight and landing capability. SumoAir is targeting a cruise speed of approximately 87 mi/h with endurance up to 1.3 h. The passengers will be able to cruise at altitudes up to 8,200 ft.
https://www.commercialdroneprofessional.com/uavos-presents-concept-sumoair-urban-air-taxi/

Pentagon OKs five U.S.-made drones as alternative to China systems Susan Heavey and Jan Wolfe AUGUST 20, 2020

WASHINGTON, Aug 20 (Reuters) - The U.S. Defense Department on Thursday said five U.S.-manufactured drones have been approved for purchase by the federal government starting in September, offering agencies a secure option after the use of China-made drones was banned.

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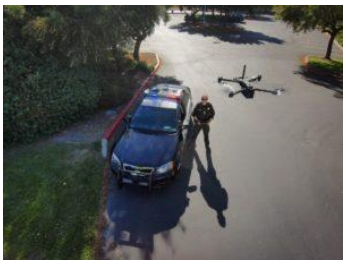
The five companies whose drones will be available are Altavian, Parrot SA, Skydio, Teal and Vantage Robotics. The drones comply with a law that prohibits the U.S. military from buying Chinese-made unmanned aircraft systems.

"We need an alternative to Chinese-made small drones," Mike Brown, director of the department's Defense Innovation Unit, said in the statement. Approving the five companies' products "enhances the long-term viability of this capability for the U.S. and our allies." https://www.reuters.com/article/usa-drones/update-1-pentagon-oks-five-us-made-drones-as-alternative-to-china-systems-idUSL1N2FM0GX

Skydio Markets X2E Enterprise Drone to Governments Jason Reagan August 20, 2020



Flying high on news of an unprecedented $100 million investment, California-based drone startup Skydio this week released details about its latest offering, the Skydio X2E.

Designed for enterprises, first responders and civilian agencies, the X2E is being touted as ideal for situational awareness and inspection of infrastructure such as buildings, bridges, power plants, power stations and railyards.

Skydio's X2 drone product line also includes the X2D, a reconnaissance/search drone marketed for defense agencies. Both drones pack autonomy software with a ruggedized airframe for "pack and go" transportation, a thermal camera and up to 35 minutes of flight time. The X2 models are equipped with six 4K navigation cameras for 360-degree obstacle avoidance and a dual sensor payload that includes 12MP color and 320×256 LWIR sensors.

"Artificial intelligence takes care of the flying, so your teams can focus on the safety of the communities they serve." https://dronelife.com/2020/08/20/skydio-markets-x2e-enterprise-drone-to-governments/

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