UAS and SmallSat Weekly News

Contents

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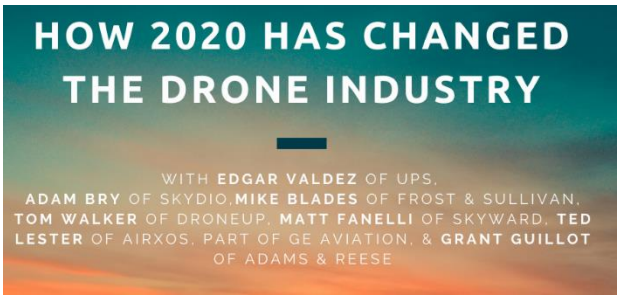
25Dec20

How 2020 Changed the Drone Industry Danielle Gagne DECEMBER 23, 2020



This recording first debuted on December 18th, 2020.

2020 has brought about significant changes for our industry that will have lasting impacts on its future. Commercial UAV News pulled together a panel of experts from all over the drone ecosystem to provide their insights and predictions for the new year.

The panel, which was comprised of Adam Bry, CEO of Skydio; Matt Fanelli Director of Strategy at Skyward; Edgar Valdez Regulatory Strategy Manager at UPS; Tom Walker, Founder and CEO of DroneUp; Ted Lester Chief Technologist at AiRXOS-part of GE Aviation; Mike Blades Vice President of Aerospace, Defense, and Security Americas Region at Frost & Sullivan; and Grant Guillot Partner and Unmanned Aircraft Systems Team Leader at Adams and Reese, discussed topics that loomed large in 2020, especially in the face of unprecedented events. The conversation covered a wide array of topics including where we are with advanced regulations, how laws and local government have and will impact our industry, the FAA Beyond Program, the upcoming Remote ID ruling, areas of anticipated growth in 2021, key learnings from 2020, public acceptance and education.

Watch the full recorded conversation as they talk about creating an inclusive and thriving drone industry here: https://www.commercialuavnews.com/infrastructure/how-2020-changed-the-drone-industry?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTkdOak1tRmpZekkzWmpReSIsInQiOiJnK1I5UW5mVjdJYnMrXC80ZndZYjRiajQ0WmRYTDR3bkVWTm5SNXpad3kycjd6bWRSazg1cmhlTGp2WWw2ckFBRzZ2aDhoSWs5SVI0ZlBrTXQydTNNZmpGc2dsQmlzOGtCSXNVTzg2UDVcL1d2aGJkdGtsMFEzUVoreTRKSTJkYkc5In0%3D

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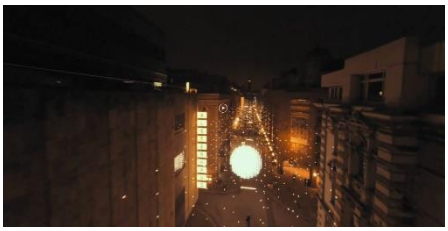
Check out this magical footage captured by an FPV drone Josh Spires Dec. 24th 2020

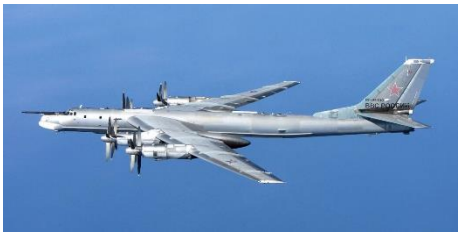


Taking a look at the video, it starts in between two buildings with Christmas lights dangling just below it. If you look closely, there is also someone on a bike. The drone then makes its way through the lights to where a person happens to be rollerblading at the perfect time.

That's when the video stops. It just 12 seconds but all 12 seconds of it is amazing, from the smooth shots in the beginning to the drone managing to scrape past the lights and the perfect timing with the roller-blader.

Magiccube22 shared they managed to capture the epic footage using BETAFPV's Beta95x whoop drone, a 100 mm drone that runs on a powerful 4S battery, making shots this possible. They also mentioned that a naked GoPro was used to capture the video. In another reply to a comment, it turns out that it is the Digital FPV version of the drone as the DJI FPV goggles were used to stream the live video down. See the video: https://dronedj.com/2020/12/24/check-out-this-magical-footage-captured-by-an-fpv-drone/#more-44849

Russia's Tu-95 bomber used as an aerial control center for drones Josh Spires Dec. 24th 2020



A Russian defense industry source told TASS earlier in the week of the trial flight involving the bomber and an unknown drone. The source shared that the trial was a practice run for the bomber's crew to learn how to guide the drone from the air.

For the trial to even happen, the plane had to be retrofitted with new equipment that allows the drone to be controlled, essentially making it an aerial control center. The Tu-95 bomber was produced from 1952 until 1993, making some of the bombers 68 years old.

Why would an old bomber be used? The Russian defense ministry has stated in the past they plan on using the bombers until 2040, and a part of that means finding new ways to use them. It allows Russia to save money on new planes and re-use the older but still capable ones at the same time. https://dronedj.com/2020/12/24/russias-tu-95-bomber-used-for-drone-control/#more-44856

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Investment Secured to Save More Lives with Drones Press 16 December 2020

A BT-lead consortium 'Project XCelerate' has come together – of which SkyBound Rescuer is among the partners – to enable drones to race ahead of rescue teams and become the first eyes on scene. Project XCelerate has been selected by UK Research and Innovation as a winning team of the Future Flight Challenge Fund project which is backed by the Government's Industrial Strategy.

Project XCelerate will establish the UK's first commercial drone corridor in open and unrestricted airspace, located south of Reading, Berkshire, which will be 8km-long. BT's strengths in reliable, secure, high bandwidth, low-latency radio and fixed connectivity will lead the consortium. BT will combine its experience with Altitude Angel's experience in Unmanned Traffic Management platforms, together with its operation of the Arrow Drone Zone commercial drone corridor.

UTM is a key enabler to address the safe and efficient integration of drones into airspace. The consortium will demonstrate how drones can operate safely in the same airspace as manned aviation. The flight trials will also explore three key industry use cases across healthcare, emergency response and infrastructure to demonstrate the potential benefits to those industries. https://www.suasnews.com/2020/12/investment-secured-to-save-more-lives-with-drones/

28Dec20

DRONE COMPANY THAT 'SEES' THROUGH TREES RAISED $45 MILLION December 28, 2020 Sally French The Drone Girl News

SeeTree, an AI-powered, end-to-end service that provides growers with intelligence on trees and tree clusters, has raised $30 million in a Series B funding round, tripling its total funding to date to $45 million.

One of its key investors is Citrosuco, one of the world's largest orange juice producers with sales to more than 100 countries. Other investors include International Finance Corporation, the private sector arm of the World Bank Group Orbia Ventures and Kubota, a Japanese manufacturer specializing in tractor and agricultural equipment.

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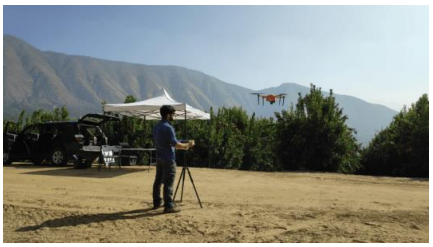

SeeTree uses military-grade drones, ground sensors, artificial intelligence and machine learning tools to understand a tree's health. Drones equipped with multi-spectral sensors collect ultra-high-resolution images used to analyze the health and growth rates of every tree in a farmer's grove. Combine that with tree and soil samples, plus machine learning algorithms to analyze the data, and from there, the farmer can design personalized cultivation plans for each tree or cluster of trees. Among the use cases are tracking tree health, pests and diseases. https://www.thedronegirl.com/2020/12/28/seetree-series-b/

Drone Advisory Committee: Senate Bill Would Require Greater Transparency

Miriam McNabb December 27, 2020

A Senate Bill, now on the President's desk, would require changes in the membership composition of the influential Drone Advisory Committee. The Committee was established to provide "independent advice and recommendations" to the U.S. Dept. of Transportation and FAA on drone regulations.

S.2730 is titled "Drone Advisory Committee for the 21st Century Act." *This bill requires the Federal Aviation Administration to take appropriate steps to encourage direct representation of county and tribal governments, as well as agriculture, forestry, rangeland sectors, and other rural interests on the Drone Advisory Committee. The FAA must include public participation in the process of nominating individuals for membership on the committee.* The Drone Advisory Committee bill, introduced more than a year ago, is sponsored by Sen. Gary Peters (D-MI) and co-sponsored by Sen. John Thune (R-SD) and Sen. Pat Roberts (R-KS).

The current membership is led by former CEO and Advisory Board Chair at Precision Hawk, Michael Chasen. The committee includes software and hardware solution providers, pilots, local government representatives and emergency services stakeholders. Earlier this year, the FAA asked for applications for new membership: the 75 eligible applications received before August 18, 2020, will be considered for vacant positions. https://dronelife.com/2020/12/27/drone-advisory-committee-new-senate-bill-would-require-greater-transparency-representation/

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Drone industry on fire after US blacklists DJI over Chinese government ties

Sally sallyannfrench@gmail.com via gmail.mcsv.net Dec 27, 2020

The biggest news as of late in the drone industry:

the U.S. government has added DJI to its restricted trade list.

DJI is a Chinese drone manufacturer, and government officials have been weary of companies poten Chinese government ties.

So how is the drone industry responding to the ban?

The short answer: it's on fire, with opinions ranging from loud support of the ban to concern among esses that rely on DJI businesses (they're wondering if they should stock up now).

Brendan Groves, Head of Regulatory and Policy Affairs at U.S. drone maker Skydio responded with fiery centered around allegations that DJI is involved in human rights violations.

Unifly pledges to ramp up support for emerging drone services market in 2021

HEADLINE NEWS JOE PESKETT DECEMBER 27, 2020

Unifly provides a platform for unmanned traffic management and is targeting both national and local authorities, including those governing cities and areas with critical infrastructure, with its services. Unifly hopes to show more and more authorities and regulators around the world that UAVs can be safely incorporated into airspace.

"We see that there is a big shift going on as more and more drone use cases become relevant and achievable, and authorities realize the need to have a system in place that streamlines these operations," said Leon van de Pas, CEO of Unifly.

"There will always be an authority who decides who flies and who does not. Currently there are two main approaches, a centralized version – like we see them today – where everything is ruled by the government, and a federated model with multiple players. As more and more countries start to implement these, we will be able to learn from each other and make new combinations."

Van de Pas believes that if Unifly manages to reach more authorities across the globe in 2021, there

will be numerous benefits for commercial drone operators.
https://www.commercialdroneprofessional.com/unifly-pledges-to-ramp-up-support-for-emerging-drone-services-market-in-2021/

DJI urges drone operators to embrace new EASA regulation HEADLINE NEWS JOE PESKETT DECEMBER 23, 2020

New European Drone regulation as laid out by the European Union Aviation Safety Agency will come into effect on 31 December 2020 and be applicable in all EU member states, Norway, Iceland, and Liechtenstein as well as the UK.

DJI has said these new rules "offer, for the first time, a harmonized framework across most European countries and will help drone pilots operate their drones in different territories on the same conditions as in their home country regardless of recreational or commercial purposes."

The company believes this will effectively improve flight safety, simplify user approval procedures, facilitate users' personal and business applications, enhance user experience and support rapid business development.

The new regulation distinguishes between low, medium and high risk categories with different requirements for products and operators. The most widely used category will be the Open Category (low risk) which will be managed through the so-called CE (Conformité Européenne / European Conformity) marking process which is an established process for products sold in Europe to ensure they meet safety, health and environmental protection requirements.
https://www.commercialdroneprofessional.com/23032-2/

Union Robotics Gains Approval from FAA 2020-12-28 Press UAV Expert News

Union Robotics has gained acceptance from the FAA towards a Durability & Reliability-based Type Certification.

To be eligible for a type certificate, the FAA must find that Union Robotics' type design complies with the certification basis. In addition, the FAA must determine that no feature or characteristic of the aircraft makes it unsafe for the category in which it is certified for operation. Union Robotics has officially applied and is working towards obtaining an FAA Type Certification, an FAA Production

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Certification and an FAA Part 135 Operating Certification.
https://www.uavexpertnews.com/2020/12/union-robotics-gains-approval-from-faa/?utm_source=Master&utm_campaign=04345b92ed-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-04345b92ed-89168288

revolutionize the transportation of goods from medical supplies and fast-food deliveries to 'Amazon-like' parcel drop off and collections.

The investment will allow Altitude Angel to capitalize on its reputation as the leader in developing and deploying local and national UTM platforms, allowing it to further expand its international presence and in doing so, accelerate the safe and secure use of drones in skies across the globe. Following the opening of its Dutch HQ in September, the company will be opening offices local to its international partners in addition to increasing its presence in markets promoting UTM growth through Q1 2021.
https://www.uavexpertnews.com/2020/12/global-drone-super-highways-a-step-closer/?utm_source=Master&utm_campaign=04345b92ed-EMAIL_CAMPAIGN_2017_12_20_COPY_01&utm_medium=email&utm_term=0_35ad7bc94d-04345b92ed-89168288

3, 2, 1—Done! Remote ID Rule is Final DECEMBER 28, 2020AIR, FAA DAWN M.K. ZOLDI (COLONEL, USAF, RET) AND JAMES POSS (MAJOR GENERAL, USAF, RET)

Four days before the new year, after 53,000 public comments on the draft rule and almost one year after the Notice of Proposed Rulemaking launch, the waiting is over. The Federal Aviation Administration has released its final Remote Identification Rule. *Inside Unmanned Systems* received an advance copy of the 499-page document, and here's our summary of the new rule.

The rule creates a new Part 89 in Title 14 of the Code of Federal Regulations, *Remote Identification of Unmanned Aircraft*. It essentially requires a "digital license plate" for unmanned aircraft to be operated in the U.S., one that both people on the ground and other airspace users can receive. This rule is specifically for the unmanned air vehicle itself and not unmanned aircraft systems which include the control station and data link. This recognizes that manufacturers might make UA's that are controlled by another manufacturer's control stations. More importantly, it ensures that the UA will be broadcasting RID and not the control station. Very important if the UA goes lost link.

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The Rule is effective 60 days from the expected publication date in the Federal Register in January 2021. Operators have thirty months and manufacturers have 18 months after this date to comply.

UAs weighing 55 pounds or less must be registered under part 47 or part 48, with few exceptions. Of note, the FAA scrapped the requirement that all UA obtain a unique registration number. Recreational users remain an exception and can still be issued a single registration number for multiple UAs. https://insideunmannedsystems.com/3-2-1-done-remote-id-rule-is-final/

Remote ID Q & A: DRONERESPONDERS Answers Questions Miriam McNabb December 28, 2020

Remote ID Q & A: Who will enforce Remote ID? When does it become effective? Where is it required? For all these questions and more, DRONERESPONDERS, a non-profit organization dedicated to helping public safety agencies use drones, has your answers.

The FAA released the long-awaited rule on Remote ID for Drones today. "Remote ID will help mitigate risks associated with expanded drone operations, such as flights over people and at night, and both rules support technological and operational innovation and advancements," says the FAA announcement.

Chief Charles Werner (ret.), Director of DRONERESPONDERS, said "Upon final implementation, Remote ID technology will provide law enforcement agencies and security stakeholders with an increased ability to evaluate low altitude UAS traffic within their respective jurisdictions."

While Remote ID will help move the safe integration of unmanned systems into the airspace forward, stakeholders will have many questions about the details of implementation. While addressed to the public safety community, the following Remote ID Q & A answers questions many stakeholders need answered: from how to equip or retrofit existing equipment to what information is made available to the public. The following Remote ID Q & A is republished with permission from DRONERESPONDERS and AIRT. https://dronelife.com/2020/12/28/remote-id-q-a-droneresponders-answers-questions/

Improve your drone piloting skills with an inexpensive indoor quad Scott Simmie Dec. 28th 2020

Let's face it. It's not the best season for flying. Depending on what part of the world you live in, winter is the worst time of the year for taking out your drone. It's cold out. Batteries and flights

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don't last as long. And unless you're really bundled up, you may just want to get back indoors before long. So what can a pilot who wants to improve his or her drone piloting skills do? We have some thoughts.

This is our favorite technique. Pick up a rugged but inexpensive drone. You're not looking for anything with GPS or position hold, so something cheap will do. In fact, the lack of stability with most toy-style drones require you to constantly be on the sticks, making non-stop adjustments. And while that might not be optimal for field flying, it's great practice if you've got a reasonable amount of space indoors. In fact, choose something that has enclosed propellors to minimize the chance you'll cause some damage to either the drone or anything (or anyone) it might hit.

This Lite Hawk Neon is a good indoors practice drone

We own the predecessor to this Lite Hawk, and it has worked great for this purpose. Priced at around $55, this is quite a responsive and — just as important — rugged drone. https://dronedj.com/2020/12/28/improve-your-drone-piloting-kills-with-an-inexpensive-indoor-quad/#more-44845

Global Drone Super-highways a Step Closer as Octopus Ventures Back Altitude Angel December 28, 2020 News

Altitude Angel, the world's leading UTM (Unified Traffic Management) technology provider, today announced it raised a further $5.3m from one of Europe's largest VC investors, Octopus Ventures. The latest fundraising concludes Altitude Angel's series A round, led by Octopus Ventures and existing investor Seraphim Capital. It also brings the total invested in Altitude Angel in 2020 to $9.4m.

UTM is the platform which will allow UAVs and manned aircraft to operate harmoniously in shared skies. Widespread adoption will revolutionize the transportation of goods; from medical supplies and fast-food deliveries to 'Amazon-like' parcel drop off and collections.

The investment will allow Altitude Angel to further expand its international presence. Following the opening of its Dutch HQ in September, the company will be opening offices local to its international partners in addition to increasing its presence in markets promoting UTM growth. "Altitude Angel's technology allows automated drones to be safely integrated within a nation's

airspace without disturbing normal air traffic. https://uasweekly.com/2020/12/28/global-drone-super-highways-a-step-closer-as-octopus-ventures-back-altitude-angel/?utm_source=rss&utm_medium=rss&utm_campaign=global-drone-super-highways-a-step-closer-as-octopus-ventures-back-altitude-angel&utm_term=2020-12-28

DroneShield C-sUAS Technology Supports U.S. Army Exercise December 28, 2020

Counter UAS

DroneShield, a global leader in Counter-UAS solutions, supported the recent U.S. Army Defense in Depth Exercise with several of its C-UAS solutions for dismounted, mounted, and fixed-site drone detection.

During DiDEX, DroneShield successfully demonstrated its DroneSentry™, DroneSentry-X™, RfPatrol™, and DroneGun™ solutions to support multiple operational scenarios within a densely populated urban environment. DroneGun™ and RfPatrol™ were used to support dismounted operations, providing situational awareness and an intuitive response capability at the tactical edge by an individual operator. DroneSentry-XTM, while mounted to a commercial vehicle, provided real-time alerts, stationary and on-the-move through the city, proving a highly effective, portable, and flexible C-UAS solution for mobile operations.

DroneSentry demonstrated its extended range Radio Frequency detection and triangulation throughout the urban airspace. In addition to long-range detections, DroneSentry demonstrated interoperability with the U.S. Army's Forward Area Air Defense Command and Control software.

"The dynamic threat drones can pose dictates that a successful Counter-UAS strategy cannot take a one-size-fits-all approach. It takes a family of adaptable and interoperable solutions to effectively detect and mitigate the threat, and protect the Warfighter," commented Oleg Vornik, DroneShield's Chief Executive Officer. https://uasweekly.com/2020/12/28/droneshield-c-suas-technology-supports-u-s-army-exercise/?utm_source=rss&utm_medium=rss&utm_campaign=droneshield-c-suas-technology-supports-u-s-army-exercise&utm_term=2020-12-28

VC Investment in Drone Industry Continues: U.K.'s Altitude Angel Scores Another £4million Miriam McNabb December 28, 2020

U.K.-based Altitude Angel is the latest to receive a new influx of funding as VC investment in the drone industry continues. Altitude Angel has raised £4m ($5.3m) from one of Europe's largest VC investors, Octopus Ventures.

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"The latest fundraising concludes Altitude Angel's series A round, led by Octopus Ventures and existing investor Seraphim Capital. It also brings the total invested in Altitude Angel in 2020 to £7.05m ($9.4m)," says an Altitude Angel announcement.

It's been a stellar year for VC investment in the drone industry. The $100 million raised by U.S. drone manufacturer Skydio set an industry record: investments in drone manufacturing, software, unmanned traffic management, and sensors continue at an incredible rate.

Altitude Angel has emerged as an industry leader, winning UTM contracts and deploying its solutions around the world. https://dronelife.com/2020/12/28/vc-investment-in-drone-industry-continues-u-k-s-altitude-angel-scores-another-4million/

DronePrep secures £30k funding to develop software for operators HEADLINE NEWS JOE PESKETT DECEMBER 24, 2020

DronePrep, which joined the UK-based technology accelerator BetaDen in August, is working with landowners to open up low-level airspace for drone flights.

It is part of a consortia that also recently secured £8 million funding from the UK Government to trial drone deliveries of critical PPE and Covid-19 testing kits between Southampton and the Isle of Wight, and to connect multiple GP surgeries along the south coast.

DronePrep is leading a consortia that has been awarded additional Government funding to create a drone airbridge and carry Covid-19 testing kits to vulnerable rural communities in Cornwall and the Isles of Scilly.

Claire Owen, co-founder of DronePrep, said: "Securing the maximum proof of concept funding is fantastic news for our business and allows us to move to the next stage of development in earnest. https://www.commercialdroneprofessional.com/droneprep-secures-30k-funding-to-develop-software-for-operators/

Autonomous Transport Drone Carries 110 lb Payload 29 Dec 2020 Caroline Rees

Bell's Autonomous Pod Transport (APT) has completed a test flight carrying 110 lbs. of payload over an 8-mile route at their testing site near Fort Worth, Texas. To date, the APT flight test program has completed over 300 flights. "The APT flight test team continues to push the

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capabilities of our aircraft, and we are excited to hit this milestone," said John Wittmaak, program manager, UAS.

In 2021, APT will demonstrate several military and commercial operations while simplifying user interfaces and enhancing the aircraft's autonomous features.
lhttps://www.unmannedsystemstechnology.com/2020/12/autonomous-transport-drone-carries-110-lb-payload/?utm_source=UST+eBrief&utm_campaign=e66bbc506a-eBrief_2020_29Dec&utm_medium=email&utm_term=0_6fc3c01e8d-e66bbc506a-119747501

Kratos XQ-58 Valkyrie UAS completes Formation Flight with F-22 Raptor and F-35

December 29, 2020 Military News

Kratos Defense & Security Solutions, Inc. announced today that the Kratos Valkyrie UAS AttritableONE flight test enabling the F-22 and F-35 5th generation fighters to fly in formation together was successfully completed last week at the Yuma Proving Ground in Arizona. The test was led by an integrated Advanced Battle Management System acquisition team comprised of Air Force Research Laboratory and Air Force Life Cycle Management Center personnel working in conjunction with Eglin Air Force Base's 46th Test Squadron.

During the test event, the Air Force's F-22 Raptor and F-35 Lightning fighters, formed up off the wings of the smaller Valkyrie as it continued to fly autonomously. This is a major milestone in the service's efforts to provide low-cost force multipliers in relevant operational environments. This was the fifth successful launch and flight of the Valkyrie, but the first time the platform has flown in formation with an F-22 and F-35.

AFRL XQ-58A Program Manager Michael Wipperman said, "The XQ-58A modularity and ability to carry robust payloads enabled the rapid capability integration into an attritable experimentation vehicle. We're thrilled with the seamless integration and demonstration of this flight."
https://uasweekly.com/2020/12/29/kratos-xq-58-valkyrie-uas-completes-formation-flight-with-f-22-raptor-and-f-35/?utm_source=rss&utm_medium=rss&utm_campaign=kratos-xq-58-valkyrie-uas-completes-formation-flight-with-f-22-raptor-and-f-35&utm_term=2020-12-29

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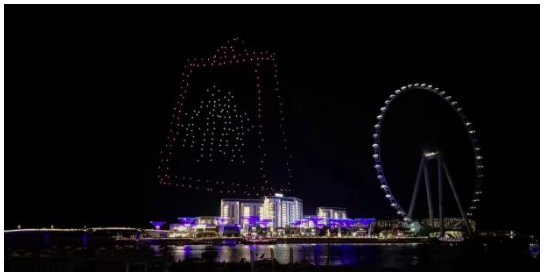
Elsight raises $8.3M for its reliable, secure, certifiable BVLOS connectivity technology December 29, 2020 News

This issue has closed oversubscribed with substantial support from shareholders and new institutional as well as professional investors on the way to achieve Elsight's vision of becoming a leading partner for UAS companies seeking connectivity solutions for commercial beyond-visual-line-of-sight flights under the approval of regulators around the globe.

"The advancements in both UAS technologies and the regulator's approach to democratize commercial operations are the engine that propelled the unmanned economy to the significant growth we have seen throughout 2020. Elsight's Trailblazing position in connectivity for commercial UASs, UAVs, sUASs, Drones and UGVs has proven itself, with our growing base of partners' pushing our technology through rigorous BVLOS testing and operations. We believe this has created a huge opportunity for platform manufacturers who can use our fully mature and deployable connectivity technology to assist them with both shortening their time to market and certifying their platforms for commercial BVLOS operations. This fund-raiser will help us reach an increasing number of drone manufacturers & service providers who want to operate BVLOS at scale and will also help us expand our product offering to solve the challenges of the market as they evolve. https://uasweekly.com/2020/12/29/elsight-raises-8-3m-for-its-reliable-secure-certifiable-bvlos-connectivity-technology/?utm_source=rss&utm_medium=rss&utm_campaign=elsight-raises-8-3m-for-its-reliable-secure-certifiable-bvlos-connectivity-technology&utm_term=2020-12-29

Dubai Shopping Festival entertains with a drone light show Josh Spires Dec. 29th 2020



The Dubai Shopping Festival is a once a year event that combines amazing shopping deals with live entertainment, including a drone show. The festival runs from December 17th and goes until January 30th.

The drone shows have been playing since the beginning and will continue for the duration of the festival. Each day there is a show at 7 and 9:30 pm, both following a different theme, 'A City of Adventure' and 'Dubai, From the Past to the Present.'

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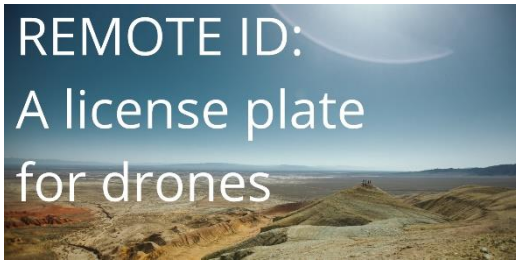
Now for the show. We are not sure which is being displayed below, but it looks like it might be 'A City of Adventure' from the images below. At the bottom of the video, you can see the speed at which the flags are moving. It is impressive to see the drones staying in formation.

The show starts with the drones taking-off from the beach and lighting up. The lights then turn off to allow the drones to get into formation. First, what looks to be a shopping bag is displayed, then various architectural symbols from around the city. I'll leave the rest of the show for you to watch. https://dronedj.com/2020/12/29/dubai-shopping-festival-entertains-with-a-drone-light-show/#more-45129

What will the FAA's Remote ID Rule mean for you? Scott Simmie Dec. 29th 2020



You can think of the Remote ID as a "digital license plate" that's transmitted wirelessly from your drone.

That signal will allow people to identify the type of drone being flown and its trajectory remotely, using an app on their phone. Only those directly involved with airspace safety (FAA, law enforcement) will have the ability to access the registered owner's name. So you don't need to worry about strangers pulling down your personal data.

You do, however, need to worry about when this rule goes into effect, and whether the drone you're flying at the time is enabled for Remote ID

There's good news here. You've got plenty of time before any of this becomes real. But it's worth starting to think about, especially if you earn a living with drones and have more than one of them in your fleet. Here's how the timeline breaks down.

1. Remote ID Rule announced
2. Final rule published in Federal Register – sometime in January
3. Rule goes into effect: 60 days after January publication

However, the rule itself has a long window before you (and drone manufacturers) have to do anything. The operational part of the rule doesn't come into effect until 30 months after the rule itself goes into effect. In other words, you have about 32 months, nearly three years, before this becomes part of your daily ops. https://dronedj.com/2020/12/29/what-will-faa-remote-id-mean-for-you/#more-45104

30Dec20

Alpine 4 Stock Surges After Impossible Aerospace Acquisition and DJI Blacklist

Miriam McNabb December 29, 2020

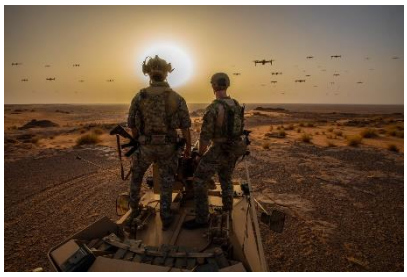
Alpine 4 Technologies Ltd. (OTCMKTS:ALPP) stock had risen 1,900% in 4 weeks as of December 15. The stock price isn't high – it went from $.04 on November 16 to $.80 on December 11 – but market analysts say Alpine 4's Impossible Aerospace acquisition, combined with the U.S. Department of Commerce decision to add Chinese drone manufacturer DJI to their blacklist, were largely responsible. Now, Alpine 4 adds another drone company to the portfolio – and could become a growing force in the industry.

Impossible Aerospace made big news when it first began exhibiting a couple of years ago. The company was started by Spencer Gore, a young engineer who had worked for Tesla and had an elegant idea for improving flight endurance. The US-1 drone has battery cells integrated into the structure, allowing the aircraft to carry more power for its weight. Equipped with thermal sensors, it has about 1-hour flight endurance – a significant gain over other drones of its size.

Now, Alpine 4 is making big news with their Impossible Aerospace acquisition – just as the company completed its final deliverable on a $1.5 million Small Business Innovation and Research U.S. Air Force contract. That's a milestone that Alpine 4 says will open the door for new government contracts. https://dronelife.com/2020/12/29/alpine-4-stock-surges-after-impossible-aerospace-acquisition-and-dji-blacklist/

Counter-drone startup Epirus raises $70M, plans to hire 100 people

Joe Gould December 17



WASHINGTON — The round was led by San Francisco, California-based Bedrock Capital, and brings the 2-year-old company's total capital raised to $80 million.

The news comes six months after Epirus inked a strategic supplier agreement with Northrop Grumman to provide exclusive access to Epirus' software-defined electromagnetic pulse system Leonidas. Since then, the firm has doubled in size and plans to add 100 jobs in 2021.

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"We're aggressively hiring and expanding our footprint on the East and West coasts," Epirus CEO Leigh Madden told Defense News. He added that the firm is shifting its headquarters from the Hawthorne, California, to its newer offices in Tysons Corner, Virginia. https://www.defensenews.com/2020/12/17/counter-drone-startup-epirus-raises-70m-plans-to-hire-100-people/

China's first national standard for express delivery drone service Press 30 December 2020

The *Specification for Express Delivery Service by Unmanned Aircraft* issued by the State Post Bureau of PRC will be effective from January 1st, 2021. The Standard was jointly formulated by industry-leading players including EHang (Nasdaq: EH), JD.com (Nasdaq: JD), and ZTO Express (NYSE: ZTO). As China's first industry standard for express delivery service by unmanned aircraft, the implementation of the Standard is of great significance for improving last-mile delivery service, ensuring the safety of operations as well as promoting the development of the urban air mobility industry.

The Standard is applicable to express delivery services by unmanned aircraft with a maximum empty weight of 116kg, a maximum takeoff weight of 150kg and an airspeed of no greater than 100km/h. Moreover, it specifies the service entities, conditions, procedures, assessments, safety issues and compensation of express delivery by unmanned aircraft which provides a standard reference for postal express companies and drone operators to engage in delivery services in the future. https://www.suasnews.com/2020/12/chinas-first-national-standard-for-express-delivery-drone-service-will-be-effective-from-january-1-2021/

Drones used to locate methane spilling oil and gas wells in NY Josh Spires Dec. 30, 2020

The drones are equipped with methane detectors to identify the wells' location before a team goes in.

The high-tech detection method is part of a joint initiative between the New York State Department of Environmental Conservation and the Energy Research and Development Authority. The initiative will put up to $400,000 to detect abandoned oil and gas wells in central and western New York. Currently, methane makes up for around 10% of New York's greenhouse gas emissions, making this project

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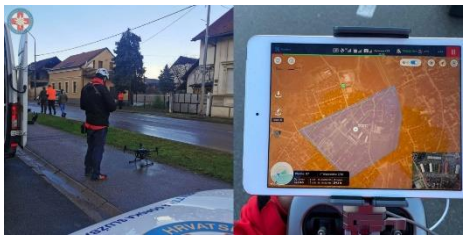
even more important. The aim is to plug these wells once they are found to reduce their greenhouse gases. The wells were first opened starting early in the 19th century before state regulations

The team has been able to find more than 2,000 wells by working with locals and landowners who know where the wells are located. The drones will be used to increase this number and reduce the number of ground searches required. https://dronedj.com/2020/12/30/drones-used-to-locate-methane-spilling-oil-and-gas-wells-in-ny/#more-45193

Drones are being used in the Croatian earthquake cleanup Josh Spires Dec. 30, 2020



The Croatian Mountain Rescue team has welcomed a drone team to help with its rescue and cleanup operations from the recent 6.4 magnitude earthquake that shook the country and surrounding region.

The magnitude 6.4 earthquake hit 3 km from the town of Petrinja in Croatia just after 7 am EST on December 29th. The earthquake follows a string of smaller ones that have been shaking the region for the past few days.

The earthquake has affected Croatia, Bosnia, Herzegovina, Czechia, Germany, Hungary, Italy, Montenegro, Romania, Slovakia, Slovenia, Serbia, and Austria. Over in Croatia, drones have been called in to help with the efforts and hopefully find more people before they die in the rubble.

The drones have been used to map areas with rubble to check for life signs and anything that could be dangerous. The town closest to the epicenter Petrinja, has seen the drones mapping a total of 830 hectares so far, with the team hitting 77 villages bringing water, food, medicine, and other supplies. Along with the DJI Inspire 2 drones and K-9s, firefighters were able to find six people buried and injured in the toppled buildings. https://dronedj.com/2020/12/30/drones-used-croatian-earthquake-cleanup/

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31Dec20

DJI's Response to Remote ID: "A Rule That Will Serve the Whole Industry" Miriam McNabb December 30, 2020

DJI's response to Remote ID, the FAA regulation released on Monday, is a positive one. The world's largest drone manufacturer says they will work towards complying with the new regulations.

"DJI has long supported the FAA's Remote ID initiative because it will enhance drone accountability, safety and security. The FAA's deliberative process of reviewing over 50,000 public comments has resulted in a rule that will serve the whole industry, as operators move on to more complex drone operations that save lives and benefit society. We are reviewing the final rule to understand how DJI can take steps towards complying with the FAA's upcoming requirements."

DJI's response to Remote ID is influenced by the elimination of the network requirement which many in the industry criticized. DJI was early in the development of Remote ID technology, with the introduction of Aeroscope in 2017. In a March 2017 whitepaper, titled "What's in a Name?" DJI argued for a "balanced solution," a non-network, localized approach. The non-network approach would provide enough information for security purposes, the company argued, without jeopardizing the reasonable privacy concerns of drone operators.
https://dronelife.com/2020/12/30/djis-response-to-remote-id-a-rule-that-will-serve-the-whole-industry/

Russia's Orion drone launches first powered guided missiles Josh Spires Dec. 30th 2020

Russia's Orion drone has launched powered missiles for the first time, a big step for the country going forward. The drone first flew in 2017 but has never been flown with a powered payload before.

The news of the milestone was shared by Russian-run state media RIA earlier this week. The new capabilities will allow Russia to bring its drones into an equal playing field with the rest of the world.

Sources told the Russian media agency that multiple launches of an unnamed "small guided missile" were undertaken. Earlier this month, it was reported that Russia ordered three of these

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Orion drones for unknown reasons. Well, we might know what they plan to do with the drones.

During the Army 2020 conference earlier this year, the Ministry of Defense and the company behind the drones, the Kronstadt Group, signed a deal which saw the first drones sent over to the test and evaluation field back in April.

The head of the Defense Ministry, Sergei Shoigu, has already shared that the first lot of Orion drone control stations had already made their way to the Russian Space Force. The drone has also appeared in the space force's 2021 calendar, suggesting it will be put to use right away.

The Kronshtadt Orion drone is manufactured by the Kronstadt Group to carry up to four missiles totaling 200 kg. The drone has a cruising speed of 75 mph and can fly for 24 hours on a single tank. There are currently three versions of the drone, the Orion, Orion E (export model), and the Orion-2, also known as Helios. https://dronedj.com/2020/12/30/russias-orion-drone-launches-first-powered-guided-missiles/#more-45232

The UK looks to build a new fleet of drones amid recent conflict Josh Spires Dec. 30, 2020

The UK Ministry of Defense (MoD) wants to produce a new fleet of cost-effective armed drones as it watched the Nagorno-Karabakh conflict between Azerbaijan and Armenia. Defense officials have stated they believe using lower-cost Turkish drones played a crucial part in Azerbaijan tactics. Sources from the Ministry of Defense shared that it wants to produce its own low-cost armed drones in the five-year defense review, which is set to be released early next year.

The Bayraktar TB2 drone from Baykar is a medium altitude long endurance drone used for both surveillance and armed missions. So far, it has been used by Azerbaijan, Libya, Qatar, Turkey, and Ukraine. It can fly 136 mph and stay in the air for 27 hours. It uses an unknown 100 HP fuel-injected engine with a 79-gallon gas tank.

When armed, it can carry up to four bombs, including anti-tank missiles, precision-guided missiles and laser-guided rockets. For surveillance operations, it is equipped with EO, IR, LD, and targeting sensors, with an upgrade to the system coming soon.
https://dronedj.com/2020/12/30/the-uk-looks-to-build-a-new-fleet-of-drones-amid-recent-conflict/

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