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Reuben Wu turns to drones to create epic photos in latest series Josh Spires Nov. 27th 2020



Jack of all trades Reuben Wu has released his latest series, Light Storm, which <u>incorporates a drone</u> to create ghostly lights and illuminate the eroding Utah landscape. He has created the photos for the clothing brand Vollebak.

He has come back with another amazing project that uses

drones to show off nature in its true beauty. The shots are inspired by "ideas of planetary exploration, chiaroscuro paintings and science fiction."

In some photos, Wu features the drone itself in what appears to be long exposures to create floating rings that mimic extraterrestrial life. In the other images, he uses a drone with a massive spotlight to illuminate the land below. This method also creates highlights and shadows that mix perfectly with the rocks' colors to create awesome images.

He has worked with many companies in the past and is no stranger to creating art with drones. Wu is a go-to for DJ Zedd, who has had custom photos done for a few of his song covers. Wu has also worked with Apple, Samsung, Audi, Google, IBM, GE and Land Rover.

You can check out a few of the photos from his latest work below, and head over to <u>his</u> <u>website</u> to see and learn more about the projects he does.







https://dronedj.com/2020/11/27/reuben-wu-turns-to-drones-to-create-epic-photos-in-latest-series/#more-42134



Westport police turn to drones to locate a suicidal man Josh Spires Nov. 27th 2020



Westport police in Massachusetts have turned to drones to help in the search of a suicidal man after he made concerning comments to his family. The <u>police</u> <u>department</u> sent up a thermal camera-equipped drone and was able to find the man in a safe condition.

After he <u>made comments to his family</u>, the police were notified of the man that prompted them to call in support from the Westport police. The man had turned off his phone, making it impossible for him to be traced by it. Police thought he went to a local wooded area in town. This was when officers decided to deploy the drone.

Westport Det. Robert Rebello, who is also a FAA certified drone pilot said: "As soon as we went up, we swept a portion of the property and went over to the cemetery and that's when we found him lying by the stone wall." The man was taken to the local hospital for evaluation but appeared to be in a safe condition. A search like this one is the perfect use case for a drone.

The department received its first drone a few years back from the city and then got another from a donation. The drones have replaced the Massachusetts State Police helicopter in most scenarios, making for faster and cheaper deployment. Rebello added that the thermal drone is great to use during the night. https://dronedj.com/2020/11/27/westport-police-turn-to-drones-to-locate-a-suicidal-man/#more-42146

British government looks into rural drone deliveries Josh Spires Nov. 27th 2020



The <u>British government</u> is looking into introducing drone deliveries to rural areas to ensure they don't fall behind the rest of the country when it comes to transport technology. Ministers are currently asking for suggestions on various ideas, including delivery and passenger drones.

The government is currently <u>looking into ways</u> to cut down delivery times in rural and isolated towns. The options include drone deliveries, passenger drones, introducing electric cargo bikes, linking all public transport options into one app and making walking and bike paths accessible online.

Earlier in the year, drones were used to deliver goods and medical supplies to the Isle of Wight. This has proven to the government that drones are an option that it is eager to investigate



more. Drone delivery is still in its early stages, making it an important time to create rules and regulations.

Rachel Maclean, transport minister will show off the plans at the Financial Time's Future of Mobility summit next week. She added that the plan, "will give us a unique opportunity to harness the community spirit of rural areas to understand how innovation in transport can benefit the people and communities that need it most." https://dronedj.com/2020/11/27/british-government-looks-into-rural-drone-deliveries/#more-42156

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Unmanned Drones to Respond to 911 Calls in Georgia Town ZACHARY HANSEN, THE ATLANTA JOURNAL-CONSTITUTION NOVEMBER 6, 2020



Brookhaven, Ga., will become the first city in the southeast to adopt a first responder program that uses unmanned drones to respond to 911 calls, emergencies and to conduct investigations.

On Tuesday night, the city approved funding for the Brookhaven Police Department's unit, which will consist of

four drones. Police will be able to deploy them to witness crimes in progress, document crime scenes or provide a bird's eye view for officers on the ground.

Not every 911 call will be answered with a drone, but Brookhaven police said the project will give its officers more flexibility, availability and information, while limiting in-person contact amid the coronavirus pandemic.

Ayana, who pitched the project to the City Council, said Brookhaven will become the second city in the country to adopt this program — the first was the Chula Vista Police Department in California in 2018. Chula Vista police have credited the drone program with 275 arrests and 650 calls for service that ended up not needing an officer's presence.

The unit's creation will cost the city roughly \$83,700 in its first year in addition to annual recurring costs of about \$22,600. The city will fund the project using coronavirus relief funds, citing that the drones will lessen human interaction among officers and citizens, potentially limiting the spread of the virus. https://www.govtech.com/public-safety/Unmanned-Drones-to-Respond-to-911-Calls-in-Georgia-Town.html



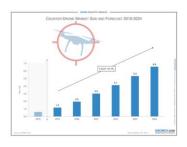
30Nov20

COUNTER-DRONE MARKET SET TO BE WORTH \$6.6 BILLION BY 2024 November 30, 2020 Sally French The Drone Girl News



German-based drone analytics firm Drone Industry Insights studied 575 counter-drone solutions, 253 counter-drone companies and 45 counter-drone contracts. And with their analysis, the research firm

said they predict that the global, counter-drone market will grow to \$6.6 billion by the 2024 at a 41.4% compound annual growth rate.



A number of counter-drone companies have received big time funding. Just last month, San Francisco-based anti-drone technology startup Dedrone announced that it received \$12.1 million in a funding round led by European technology investor TempoCap. DII estimates that more than \$280 million have been invested in counter-drone companies since 2012 — a figure they

say is growing exponentially.

Other money to the anti-drone industry is being doled out in the form of hackathon or competition prize money. For example, a March 2019 event in the Netherlands dubbed DroneClash awarded €50.000 in prize money in a competition that called for entrants to build ant-drone tech.

Among the notable companies working in the anti-drone tech space include DroneShield and <u>Blackberry</u>; major aviation players and defense contractors Raytheon, Boeing and Airbus; and even the <u>Department of Defense</u>. http://www.thedronegirl.com/2020/11/30/counter-drone-market/

Virgin Orbit planning second LauncherOne mission for December Jeff Foust November 27, 2020



After a May launch failed seconds after ignition of the rocket's first stage engine, Virgin Orbit is planning to make a second orbital launch of its LauncherOne vehicle Dec. 18-21, according to Coast Guard notices.

WASHINGTON — Virgin Orbit is preparing to perform a second flight of its LauncherOne small launch vehicle in the second half of December, carrying a set of NASA-sponsored cubesats.



A Nov. 24 <u>"Local Notice to Mariners"</u> by the U.S. Coast Guard stated that Virgin Orbit "will conduct hazardous operations" offshore from San Nicolas Island, California, between Dec. 18 and 21. The notice does not explicitly state that a launch will take place, but Virgin Orbit used the same language in a Coast Guard notice for its first orbital launch attempt in May.

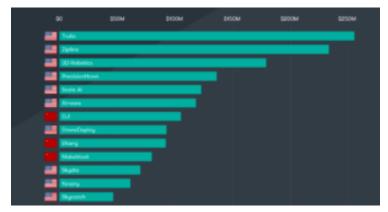
The company has not announced a formal launch date yet but has stated it intends to carry out a second launch before the end of the year. The company shipped the LauncherOne rocket for what it calls the Launch Demo 2 mission from its factory in Long Beach, California, to the Mojave Air and Space Port earlier this month. Technicians then mated the rocket to the company's Boeing 747 carrier aircraft. https://spacenews.com/virgin-orbit-planning-second-launcherone-mission-for-december/

Where are the Drone Companies? The Drone Capitals of the World Miriam McNabb November 29, 2020



RS Components has put together a report outlining the drone capitals of the world. Using Crunchbase data, the report also looks at <u>investment funding</u> for those drone firms listed. Despite China's manufacturing dominance, the U.S. has the most drone business headquarters.

The report finds more than 450 drone headquarters in the U.S. China is the number 2 country, but their research found only 50 drone companies there: Japan is a close third with 47 drone businesses.



When it comes to funding, we found the data a little bit out of date

- Skydio's 100 million isn't listed, so they aren't on the top of the list. SF-based Trulia is listed as the top funded company: but real-estate giant Trulia isn't, strictly speaking, a drone company. Startup Airware is still high on the list, and it's true that

they received significant funding in their time: but the <u>company closed</u> in 2018 and the assets were purchased by French firm Delair.



We get the gist, however. Drone delivery pioneers <u>Zipline</u> head the list with more than \$200 million in funding: there are at least 8 other U.S.-based drone companies who have received more than \$50 million in investment capital. China's DJI, EHang, and Makeblock also make the list of the top 20. https://dronelife.com/2020/11/29/where-are-the-drone-companies-the-drone-capitals-of-the-world/

XTI, VERDEGO AERO PARTNER ON SMALLER CARGO TRIFAN CURT EPSTEIN NOVEMBER 20, 2020 FutureFlight



VerdeGo Aero is to provide its diesel engine to power the TriFan 200 eVTOL freighter being developed by XTI Aircraft. The new model is a smaller version of XTI's 600 VTOL passenger aircraft.

The TriFan 200, intended for unmanned,

autonomous cargo and logistics transportation, will be powered by VerdeGo's hybrid-electric powertrain, which includes a 180KW generator, along with its high-power battery pack. The diesel (jet-A)-hybrid generator is key to the reduction of emissions and fuel burn by 35 percent compared to a conventional turbine powertrain, while reducing direct operating costs by 40 percent.

While the project is still in the early stages of conceptual design, using XTI's existing two-thirds scale model of the aircraft as the baseline, the aircraft will be capable of carrying 500 pounds of cargo on flights of more than 200 miles, enabling it to fulfill short-distance, time-critical missions more rapidly than ground transportation. https://www.futureflight.aero/news-article/2020-11-20/xti-verdego-aero-partner-smaller-cargo-trifan

Northrop Lands Potential \$4.8B Air Force Global Hawk UAS Modernization IDIQ Brenda Marie Rivers November 30, 2020 Contract Awards, News



Northrop Grumman (NYSE: NOC) has received a potential \$4.8B contract to update, refurbish and sustain the <u>U.S. Air Force's fleet of RQ-4 Global Hawk unmanned aerial systems</u>. The contract includes task orders for specific UAS modernization services in line with the Air Force's Global Hawk program.

Contract work in support of the UAS and its variants cover various activities including program



management, engineering, analysis, overseas contingency operations support, fielding assistance, logistics services, facilities modification, quality assurance and requirements specification management. Since 2001, the Air Force has deployed Global Hawk to support long-distance operations such as intelligence-gathering, emergency response, search-and-rescue and weather forecasting.

Northrop will perform work under the IDIQ contract in San Diego, California, through Sept. 30, 2030. https://www.govconwire.com/2020/11/northrop-lands-potential-48b-air-force-global-hawk-uas-modernization-

idiq/?utm_campaign=Posts%20from%20GovconWire%2011.30.2020%20%28VUUnt7%29&utm_medium =email&utm_source=LIST%3A%20GovConWire%20Daily&_ke=eyJrbF9lbWFpbCl6lCJyb2JlcnRocmVhQGdtYWlsLmNvbSlslCJrbF9jb21wYW55X2lkljogllRCS0t4UCJ9

Nordic Unmanned will become the first publicly listed drone operator in Europe Press 27 November 2020



Sandnes, Norway – Nordic Unmanned AS, a leading European provider of drone systems and services, is contemplating a private placement and listing on Euronext Growth Oslo to finance expected growth and international expansion.

Nordic Unmanned has engaged SpareBank 1 Markets and SpareBank 1 SR-Bank Markets to advise on the contemplated private placement. The company intends to raise total proceeds of NOK 50 – 100 million. The purpose is to acquire more high-end drone systems as well as developing our proprietary product portfolio. The company intends to apply for a listing of its shares on Euronext Growth Oslo. The first day of trading is expected to be on or about the 15th of December 2020.

Founded in 2014, Nordic Unmanned serves customers in Europe in environmental monitoring, fishery control, security, logistics, surveying and mapping. The total drone market in Europe is expected to grow by approximately 14 percent annually to around \$10 billion from 2020 to 2025. North America and Asia have similar growth rates.

https://www.suasnews.com/2020/11/nordic-unmanned-will-become-the-first-publicly-listed-drone-operator-in-europe/?mc_cid=94d0157d75&mc_eid=206e234265



Philadelphia drone pilot and YouTuber receives \$182,004 fine from the FAA



According to <u>DroneXL news</u>, in early November 2020, Philadelphia drone pilot Mikey received 123 infractions from the <u>Federal Aviation Administration (FAA)</u>. Each letter he received fined him \$1,500 for various violations. The total amount in civil penalties adds up to \$182,004.

The violations relate to drone videos that were live-streamed to PhillydroneLife YouTube channel from December 2019 to August 2020. The FAA has issued fines for various infractions such as flying over 400 feet, reckless flying, flying in the rain, fog, and strong winds. Mikey explains the situation in a video on OriginaldoBo's Youtube channel.

This is the first time the FAA has issued such extreme fines to a drone pilot. It seems the penalties are so steep because the FAA is fining him as a Part 107 commercial drone pilot. After all, Mikey posts the videos to a monetized YouTube channel. Mikey does not have a Part 107 certificate and considers himself a recreational drone pilot.

https://www.911security.com/news/philadelphia-drone-pilot-and-youtuber-receives-182004-fine-from-the-faa

Ion-Propelled Drones for Urban Cargo Delivery



<u>Undefined Technologies</u>, a startup based in Doral, about 15 miles out of Miami, claims that it has managed to increase the thrust levels of <u>ion propulsion</u> systems to "unprecedented levels" with its "Air Tantrum" technology, enabling <u>near-silent</u> drones with no moving parts, that look like flying pallets.

The process uses a high-voltage electric field to ionize the nitrogen and oxygen molecules in the air, liberating electrons to create, primarily, a lot of positively-charged nitrogen molecules. These are drawn toward a negatively charged electrode, usually in the form of a flat screen grid, and as they accelerate, they bang into other air molecules and bump them in the same direction to create an ionic wind.

The company's presentation focuses on the benefits of an ionically propelled drone – namely, extremely quiet flight that would be much better for the urban soundscape (and noise pollution regulations) than the annoying buzz and whir of drone propellers. The company says its device



flies at less than 7 decibels, softer than the sound of breathing or rustling leaves. https://www.uasvision.com/2020/11/30/ion-propelled-drones-for-urban-cargo-delivery/

Metepec, Mexico uses drones to improve residents' lives Josh Spires Nov. 30th 2020



The municipality of <u>Metepec in Mexico</u> has been using drones for the last two years, with many people loving the high-tech addition. Last week, Gabriela Gamboa Sánchez, Constitutional President of Metepec City Council, announced a new drone program to make it an even better place for residents to live.

The <u>new drone program</u> will focus on five key areas, crime prevention, the recovery of stolen vehicles, surveillance in busy areas, event coverage, and rescue efforts.

Since the drones were introduced, the crime rate has dropped by 8%, as they have been used alongside the traditional CCTV cameras to watch over blind spots and hard to reach areas.

The drone used has a flight time of two hours and can fly 500 meters (1640 feet) high. The drones are equipped with zoom and thermal cameras to find people during the day and night. Underwater drones have also been deployed to prevent flooding around the Lerma River in a joint effort with the Metepec Water Agency.

To ensure they are being used safely and responsibly, officers have been through a three-month training program and continue to train with the drones to be prepared for even more situations. The government will continue to explore drone-related opportunities in the community and use them to promote STEAM education and be used in cultural and tourism promotions. https://dronedj.com/2020/11/30/metepec-mexico-uses-drones-to-improve-residents-lives/#more-42346

1Dec20

China's State Council Urges Acceleration of Urban Air Mobility Miriam McNabb November 30, 2020



China's government is determined to lead the world in implementing urban air mobility, enabling companies like EHang to accelerate applications from emergency response to aerial sightseeing.



"The General Office of the State Council of the PRC has recently issued a circular proposing to accelerate the strategic development of Urban Air Mobility in China," an EHang press release announces. "The circular urges to bring the development of UAM into China's National Strategies and to formulate relevant policies and standards to promote the development of the industry. Such policies and standards are expected to lay a solid regulatory foundation that should pave the way for China to become the world's largest UAM market."

China has seen increasing traffic and pollution problems in urban areas. UAM offers a new tool in tackling the problem. The development of a regulatory framework is necessary before many drone applications like passenger transportation can be realized. In the absence of global standards, development has been difficult as governments unravel the intricacies of integrating unmanned vehicles into the airspace. China's agency also urges the development of drone regulations be prioritized. https://dronelife.com/2020/11/30/chinas-state-council-urges-acceleration-of-urban-air-mobility/

Drone Harmony Integrates with Altitude Angel for Safety of Data Acquisition December 1, 2020 News



Drone Harmony has partnered with Altitude Angel, a leader in UTM (Unmanned Traffic Management) software, to provide Drone Harmony customers with in-app airspace information.

With the most recent integration, Drone Harmony customers can now view airspace data (airspace definitions, areas with flight restrictions, no fly zones) provided by Altitude Angel within Drone Harmony Web.

Airspace overlays are presented in a distinct color and transparency scheme for easy distinction with other Drone Harmony primitives, such as areas and missions. The data are directly linked to the Altitude Angel database and thus continuously updated.

https://uasweekly.com/2020/12/01/drone-harmony-integrates-with-altitude-angel-to-enhance-safety-ofdata-acquisition/?utm_source=rss&utm_medium=rss&utm_campaign=drone-harmony-integrates-with-altitude-angel-to-enhance-safety-ofdata-acquisition&utm_term=2020-12-01



Aerodyne Group Makes Strategic Investment in Australian Drone Inspection Company November 30, 2020 News



Aerodyne Group, a Malaysia-headquartered international DT3 (Drone Tech, Data Tech, and Digital Transformation) solutions provider has signed an agreement to acquire a principal stake in Australia-based drone surveying and asset inspection company, Sensorem Pty Ltd.

This investment is expected to generate upside for Sensorem, Aerodyne and clients spanning the Australian minerals, energy, industrial and agricultural sectors. Sensorem's existing management team, led by Managing Director, Ed Boxall, will continue to lead the company and remain as shareholders in the business.

Headquartered in Perth, Western Australia, Sensorem is a remote sensing specialist, offering asset inspection and aerial surveying services. The company caters to multiple sectors including government and local authorities, construction, utility companies, research and development agencies, as well as a focus on mining and agriculture sectors.

Sensorem will provide Aerodyne Group's smart drone solutions and innovative data analytics to businesses across industries in Australia. This includes the DT3 company's AI-powered, end-to-end cloud-based asset management solution "vertikaliti".

https://uasweekly.com/2020/11/30/aerodyne-group-makes-strategic-investment-in-leading-australian-drone-inspection-company/?utm_source=rss&utm_medium=rss&utm_campaign=aerodyne-group-makes-strategic-investment-in-leading-australian-drone-inspection-company&utm_term=2020-12-01

Investment banks using drone technology to scout out potential acquisitions David MacQuarrie Dec. 1st 2020



Wall Street is taking advantage of "outsider information." It's flying drones to help clients get a better idea of the companies they're interested in bidding on.

According to NBC News, <u>Goldman Sachs</u> is just one of a number of investment banks touring ports,

railroads, warehouses, and big-box retail locations with drones to help buyers look for new things to acquire.



As it did with many companies, the coronavirus forced the cancellation of in-person meetings at Goldman Sachs. But buyers still want to see what they're purchasing. And according to Stephan Feldgoise, the firm's global co-head of mergers and acquisitions, bankers are bullish on drones.

"We have been selling asset-based businesses all over the world using drones for site vis its and fly-overs," Feldgoise said. "It gives buyers the confidence because when you are buying a business, you want to see, touch, and feel what you are buying."

According to Feldgoise, there was no in-person interaction in more than 95% of Goldman's recent transactions. Drone technology is likely to become an established trend. https://dronedj.com/2020/12/01/wall-street-flying-drones/#more-42540

22 seconds of absolutely epic FPV drone footage Scott Simmie Nov. 30th 2020



We have something really worth watching. And, we're willing to bet, odds are you've never seen anything like it until now.

There are a lot of stories that come about because we surf for drone news. And today, something went past our screens

that caused us to stop cold. *Whaaaaaaaat?* And then we were hooked, watching the same 22 seconds over and over. Because, well, it's that good. What's more, it's that unusual. After all, it's not often you see a drone follow a B.A.S.E. jumper off a cliff.

You've no doubt heard the sport referred to as "B.A.S.E. Jumping" where that acronym stands for Building, Antenna, Span (like a bridge) and Earth (like a cliff). The tricky part about capturing BASE jumping footage is getting close enough for a good shot but keeping far enough away to make sure you don't interfere with the jumper's parachute deployment.

Nikolay Anishchenko and his pal Carter Hansen have formed a film company, called <u>FPV Filmz</u>. We encourage you to check out the site and consider subscribing to their YouTube and other social channels. Those YouTube posts are *definitely* worth checking out. Once again, terrific piloting, and tons of extreme adventure sports. https://dronedj.com/2020/11/30/22-seconds-of-absolutely-epic-fpv-drone-footage/#more-42450



Chinese reconnaissance Golden Eagle drone is ready for flight Josh Spires Dec. 1st 2020



The <u>brand new Chinese</u> CR500 Golden Eagle reconnaissance drone is ready to take flight locally and internationally, according to the state-owned company behind the drone, North Industries Group Corporation Limited.

The <u>Chinese-developed drone</u> has recently passed its final inspections after the company shared the news in a statement released on its WeChat account last week.

While the exact model of the drone that is ready to go doesn't have ammunition equipped, the company has previously shown off the drone equipped with up to 18 missiles.

The drone is essentially a crewless helicopter with a dual-rotor resign and uses Chinese-designed systems. It has been designed to undertake battlefield reconnaissance, target positioning, illumination, communication relay and battle damage assessments. While the drone's exact specs aren't known, the drone can carry large payloads, fly for a long time, and can withstand strong winds. The drone also sports a mounting point for optics, including zoom cameras, thermal cameras, and other surveying tools.

The drone is also expected to be used to support cargo missions and use within the civilian world, such as powerline inspections, geological surveys, fire response and search and rescue operations. https://dronedj.com/2020/12/01/chinese-reconnaissance-golden-eagle-drone-is-ready-for-flight/

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More than 500 Lives Saved by Drones: DJI Continues Mapping Project Miriam McNabb December 01, 2020

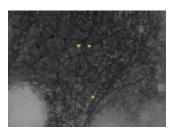


The latest rescue took place last month, when sherriff's deputies found a missing 93-year-old woman in a dark field in Missouri – using a DJI drone with a thermal imaging camera. That brings the total to more than 500 lives saved by drones, according to DJI's project counting the lives that would have been lost without direct

intervention of drone technology.



DJI began the project back in 2017 when they <u>published a paper</u> called "Lives Saved: A Survey of Drones in Action" which found that even back in 2016 – 2017, drones saved lives at the rate of nearly 1 per week. That first paper has evolved into the <u>DJI Drone Rescue Map</u>, which allows viewers to explore rescue incidents all over the world.



Thermal imaging released by the Cass County Sheriff's Office shows how the drone spotted Chris Fairchild as a bright yellow dot in the darkness and guided deputies on the ground to her. "To see that little yellow dot, knowing that that's the person you're looking for, it feels great," drone pilot Major Kevin Tieman told a local TV station. https://dronelife.com/2020/12/01/more-than-500-lives-saved-by-drones-

dji-continues-mapping-project/

Pandemic gives boost to commercial drone use, says Falcon Eye Drones boss HEADLINE NEWS JOE PESKETT NOVEMBER 30, 2020



More commercial drones are being used in the Middle East as a result of the Covid-19 pandemic. That's according to Rabih Bou Rashid, CEO of Falcon Eye Drones, who said that governments and private companies have turned to UAVs to help them complete tasks under lockdown conditions.

"Covid-19 has prompted more use of drones in the region, especially in the UAE, where they are being used by officials to enforce the 'stay home' campaign. Authorities in Dubai and Sharjah have been using them to disseminate relevant announcements and information about the disease. In addition, drones have been useful to the police monitoring residents who violate Covid-19 regulations."

Rashid is confident that commercial drones will be rolled out on a large scale in the UAE in the next five years. https://www.commercialdroneprofessional.com/pandemic-gives-boost-to-commercialdrone-usage-says-falcon-eye-drones-boss/

Martin UAV, USSOUTHCOM Complete Counter Narcotics Operations RENEE KNIGHT NOVEMBER 20, 2020

Martin UAV recently supported United States Southern Command's (USSOUTHCOM) counter narcotics operations in the Eastern Pacific to disrupt the flow of drugs, flying 273 sorties for 1,340.7 flight hours.





Martin UAV provided surveillance and reconnaissance for USSOUTHCOM during the mission, deploying EO/IR cameras so the drone could fly day and night, Martin UAV's Vice President Heath Neimi said. The V-BAT can carry a range of interchangeable payloads based on mission requirements.

The V-BAT is what Neimi describes as a third generation VTOL tactical drone. It doesn't need a launcher or runway, which is critical when launching from the deck of a moving ship. The deck should be clear of equipment, which is what makes a VTOL solution so attractive for these

types of missions. "We call it equipment-independent," Neimi said. "It still has telemetry and ground control, but there's no launcher or recovery system."

The VTOL safely transitions into a high-endurance, fixed-wing aircraft, can carry a variety of payloads and is able to fly in harsh conditions on both land and sea. It has a wingspan of 9 feet, a length of 8 feet and weighs 88 pounds. https://insideunmannedsystems.com/martin-uav-ussouthcom-complete-counter-narcotics-operations/

Flirtey Partners with Vault Health for Drone Delivery of COVID-19 Test Kits December 1, 2020 News



Flirtey, the pioneer of the commercial drone delivery industry, and Vault Health, the pioneer of supervised COVID-19 testing, today announced a partnership to test drone delivery of the first FDA authorized saliva test for COVID-19.

The COVID-19 pandemic is continuing to spread, with more than 250,000 deaths and more than 11,000,000 cases in the United States, according to the CDC. Vault Health distributes a COVID-19 saliva test kit that can be used at home under supervision from a health professional through video call. Using Flirtey's drones to deliver the test kits to homes will eliminate exposure risks and create further convenience, especially for those who do not live in proximity to on-site testing locations.

The Vault Health COVID-19 Test Kits have been added to Flirtey's existing drone delivery test program underway in the Reno, NV area. Through the partnership, which will begin immediately, Vault Health will send kits to distribution centers based on historical market demand data. When a customer places an order, a Flirtey drone will deliver the COVID-19 test kit to the customer's home on-demand. https://uasweekly.com/2020/12/01/flirtey-partners-with-



<u>vault-health-for-drone-delivery-of-covid-19-test-kits/?utm_source=rss&utm_medium=rss&utm_campaign=flirtey-partners-with-vault-health-for-drone-delivery-of-covid-19-test-kits&utm_term=2020-12-02</u>

Drones towing people on wakeboards, skis – what's next? Scott Simmie Dec. 2nd 2020



Most of us fly drones for recreation, and many of us also fly them for work. And one of the next big evolutions around the corner? Well, that seems to be passengercarrying drones.

Back in December of 2016, you likely saw the video we're about to show. It was groundbreaking and featured what was billed as the largest home-made drone ever built. The purpose? To make something powerful enough to tow YouTube phenom Casey Neistat on a snowboard. In fact, something so powerful it could even lift him right off the ground. That was really something. In case you're interested, there was a second video just on that behemoth of a drone.

Your patience is about to be rewarded with a video featuring a drone built using some components from Infineon Technologies. As part of a Red Bull campaign, a very powerful Infineon drone towed "wakeskating" specialist Brian Grubb down the Sava River in Slovenia. The X8 design has no shortage of power: https://dronedj.com/2020/12/02/drones-towing-people-on-wakeboards-skis-whats-next/#more-42685

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Thermal Imaging Leader FLIR Acquires Drone Manufacturer Altavian Miriam McNabb December 02, 2020



"FLIR Systems, Inc. (NASDAQ: FLIR) announced today that it has acquired Altavian, Inc., a privately-held manufacturer of small unmanned aerial systems for defense and public safety customers. Altavian's airframes integrate multiple sensors, including FLIR thermal technology, to provide users with decision support and intelligence, surveillance, and reconnaissance capability."

Founded in 2011, the Gainesville, Florida-based <u>Altavian</u> designs and manufacturers Group 1 UAS solutions for long or short range operations. Altavian's M440 Ion is one of five U.S.-



manufactured drone solutions on the U.S. Department of Defense "<u>Blue sUAS</u>" list of trusted solutions for U.S. military and federal agencies.

FLIR's acquisition of Altavian is the latest acquisition of a drone manufacturer, allowing the company to offer a fully integrated drone solution with their thermal imaging payloads. Last year, FLIR acquired the assets of tethered drone company Aria, formerly known as CyPhy Works, invested \$200 million in Canadian drone manufacturer Aeryon and made a significant investment in drone operations Company DroneBase. https://dronelife.com/2020/12/02/thermal-imaging-leader-flir-acquires-drone-manufacturer-altavian/

Drones for Power Line Monitoring: This Rugged Drone is Ready for Nordic Storms [VIDEO] Miriam McNabb December 02, 2020



Around the word, power companies are using drones for power line monitoring, especially after extreme weather events. Now, Finnish energy company <u>Järvi-Suomen Energia</u>, who distributes electricity for over 100 000 customers in Finland's lake district, is working with Estonian technology company <u>Hepta</u>

<u>Airborne</u> to detect post-storm damages. Hepta Airborne's drone is designed to stand up to Nordic storms: and their Al-driven software is ready to detect problems.

In Finland, Järvi-Suomen Energia is testing drones to keep their customers up and running, even during the Nordic winters. The lake district poses particular challenges: it's an area filled with countless lakes, islands, capes, and hollows. "It is essential for us to ensure the permanent availability of electricity for our customers. Reducing power outage time is one of the priorities," said Tomi Öster, Business Development Manager at Järvi-Suomen Energia.

In Finland, the wind can blow 20 meters per second (more than 44 miles per hour): but Hepta's aircraft is up to flying even under those conditions. Hepta Airborne's CEO Henri Klemmer claims that Hepta is the only one in the Nordics providing real-time storm surveillance 24/7, regardless of high wind, or heavy snow. "Our drone has two special strengths. Its wind resistance is strong, and it can fly for three hours at a time," says Klemmer. https://dronelife.com/2020/12/02/drones-for-power-line-monitoring-this-rugged-drone-is-ready-for-nordic-storms-video/



How the Wilmington Police Department Uses Drones Jonathan Haynes Star-News, Wilmington, N.C/TNS Dec 2nd, 2020



NORTH CAROLINA-In early June, a persistent buzz could be heard over the cries of demonstrators protesting police violence and systemic racism in front of Wilmington City Hall. The sound came from drones operated by the Wilmington Police Department, which, according to

the department's public drone logs, were deployed for "Crowd Observation / Protest Security" from June 1-6.

"You have large crowds, you have a variety of people on the ground from very peaceful to not so peaceful actors," said WPD Chief Pilot Paul Letson in an August interview. "So the drone can be used as an eye in the sky for the command post to keep an eye on what's happening around the officers and around critical areas where trouble can start. This use is called "situational awareness."

"Our predominant use has been for crime scene investigation assistance and traffic accidents," said Letson, describing "scene documentation." "During a hurricane, we can use (drones) in addition to a helicopter to do surveys of damage and waterways." https://www.officer.com/command-hq/technology/news/21164820/how-the-wilmington-police-department-uses-drones

Alabama rocket startup Aevum just unveiled the world's biggest drone - a 28-ton autonomous behemoth that may soon rocket US military satellites into orbit Dave Mosher December 3, 2020



Jay Skylus, the CEO of autonomous launch startup Aevum, stands in front of a Ravn X rocket-launching drone.

Aevum, a quiet, scrappy, and ambitious rocket-launch startup, unveiled the biggest drone in the world on Wednesday. Called Ravn X, the fully autonomous vehicle is 80

feet long, has a wingspan of 60 feet, and stands 18 feet tall. It's not the largest unmanned aerial vehicle by size - the wings of Northrop Grumman's MQ-4C Triton stretch nearly 131 feet. But the Ravn X wins on mass, weighing 55,000 pounds when you include the rocket that will drop out of its belly in midair and shoot a satellite into space.

Despite its unusual size and mission, the drone isn't so different from your standard aircraft. It flies like a typical plane, and it and its rocket use Jet A, a very common kerosene-based fuel,



says Jay Skylus, the CEO and founder of Aevum. "We don't need a launch site. All we need is a runway that's one mile long and a hanger," Skylus told Business Insider.

Once Ravn X reaches the right location, speed, and altitude, its two-stage rocket is designed to drop, ignite within half a second, and launch a roughly 100-kilogram (220-lb) payload into <u>low-Earth orbit</u>. The approach is similar to air-launched rocket systems developed by <u>Virgin Orbit</u>'s and Pegasus, though Skylus claims Aevum's unmanned version is more efficient, cost-effective, and enterprising. https://news.yahoo.com/alabama-rocket-startup-aevum-just-170000599.html

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First Nationwide Implementation of Remote ID Begins Soft Launch in Switzerland Miriam McNabb December 03, 2020



Switzerland is launching the first nationwide implementation of Remote ID services. With a final <u>rule on Remote ID</u> for drones due by the end of this month in the U.S., the global aviation community is watching this first important launch of Remote ID technology.

The <u>Swiss Federal Office of Civil Aviation</u> and the <u>Swiss U-Space Implementation project</u> (<u>SUSI</u>) have launched the <u>very first</u> nationwide system of Remote ID, one of the cornerstones of a robust Unmanned Traffic Management system. During the Swiss soft launch, compliance with Remote ID rules are voluntary for operators, and access to drone identity information will begin with public safety organizations.

ANRA Technologies is one of the partners chosen to be part of the initial rollout. Today, ANRA launched SmartSkies™ DroneID: one of the tools that will demonstrate how Remote ID will work. Approved by the Swiss government, it provides appropriate levels of access to drone information based on user permissions. This year, SmartSkies DroneID™ will enable public safety organizations to identify drones operating in their vicinity by providing the drone registration number and mission information, while additional operator details are available to qualified authorities upon request. Eventually, this capability will be available to the general public.

This permissions-based approach deals with one of the primary concerns drone operators express. Providing operator details only to appropriate authorities after an application process protects operator privacy: while also meeting the needs of authorities to ensure the safety and



compliance of drone operations. https://dronelife.com/2020/12/03/first-nationwide-implementation-of-remote-id-begins-soft-launch-in-switzerland/