



UAS and SmallSat Weekly News

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22May21

Drones — some fast, some funny — bring enthusiasts together in Port Gamble, Washington

Jessie Darland Kitsap Sun



A fleet of drones buzzed around the Port Gamble RC Field on Saturday, twisting around sharp turns, ducking under hoops and dropping little parachutes from above. The Kitsap Drones group was formed around six years ago by Sam Rasmussen to bring together drone enthusiasts.

The group has members of all ages with all different experience levels. Some of the pilots are hobbyists, while others have commercial licenses. Some purchased their drones, while others made them themselves.

Ian Pluska, a 16-year-old from Hansville, was known among the group for his super speedy drone. Pluska won a drone race in Olympia recently and will be competing at more local events. He's hoping to qualify to compete nationally in Florida. The other members of the group are impressed with his ability to accurately navigate at such high speeds.



"Two years ago he was 14 years old flying 140 mph," Rawlings said. "His actions, reactions, responses are incredible."

Pluska became interested in drones after watching Youtube videos about them. He decided to build his own and has become involved in the community. Though there aren't

many his age in Kitsap with this hobby that he knows of, there are young drone enthusiasts all around the country, he said. <https://www.kitsapsun.com/story/news/2021/05/16/kitsap-drones-group-buzzes-through-port-gamble-rc-field/5118112001/>

Skyports builds momentum as AAM infrastructure provider in Japan

May 21, 2021
News



[Skyports](#), the world's leading vertiport company, has been selected to participate in two upcoming initiatives aimed at delivering eVTOL technology in Japan's Osaka Prefecture.

Skyports has been accepted as one of five organizations to contribute



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eVTOL expertise to the Osaka Smart City. Following a joint submission with Tokyo based trading company and Skyports partner Kanematsu Corporation, the project will see Skyports play a pivotal role in the development of infrastructure and drone delivery services.

Skyports has also been chosen as one of ten contributing organizations for Osaka Prefecture's "Green Table", a collaborative roundtable platform launched to accelerate the commercialization of advanced air mobility. In addition to working with industry partners on the planning of the network, Skyports aims to have an operational passenger eVTOL vertiport in place by the **Osaka-Kansai World Expo in 2025**. https://uasweekly.com/2021/05/21/skyports-builds-momentum-as-aam-infrastructure-provider-in-japan/?utm_source=rss&utm_medium=rss&utm_campaign=skyports-builds-momentum-as-aam-infrastructure-provider-in-japan&utm_term=2021-05-21

Watch Baby Yoda light up the sky in Disney+ drone show [Ishveena Singh](#) May 21st 2021



Baby Yoda is everywhere: in our hearts, in all kinds of merchandise, in internet memes, in video games, and now, even in Disney's drone light shows.

Alongside Baby Yoda, dotting the LA skyline were iconic characters and imagery from beloved movies, series, and sports across the Disney+, Hulu, and ESPN+ ecosystem.

But honestly, when we heard Disney+ was going to host a drone light show, we hoped that Disney Enterprise would show off some of its [recently patented](#) drone technology for live performances.

That patent's abstract detailed that drones would work together with other ground-based systems to move and animate objects on a live stage. Since that patent called regular drone light shows "disconnected" from the live performance cadence of the rest of the production, we have been eager to see how Disney plans to make drones work in tandem with human actors. But maybe that's something Disney would like to showcase only in its theme parks.

For now, the regular drone light shows would do – as long as they keep on bringing back Baby Yoda. You can watch the video from the Disney Bundle show that enthralled Santa Monica residents this week [here](https://dronedj.com/2021/05/21/disney-drone-light-show/#more-58405): <https://dronedj.com/2021/05/21/disney-drone-light-show/#more-58405>



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Belgium to use drones for high-precision nuclear radiation monitoring Ishveena Singh May. 21st 2021



Belgian nuclear research center SCK CEN and aerospace company Sabca are joining forces to equip drones with radiation measuring equipment – a scintillation counter. As a result of this public-private [partnership](#), nuclear radiation measuring drones will soon be used as a part of monitoring programs, during decommissioning projects, and for emergency planning.

Johan Camps, who is heading SCK-CEN's Crisis Management and Decision Support unit, explains how the detector works. *The device measures radioactivity by counting flashes of light caused by the influx of ionizing radiation, which in turn indicates the magnitude of the radiation dose. The more the light, the more the radiation.*

Flexibility is the biggest advantage of using drones in the nuclear sector. While drones can take measurements from every nook and cranny of the area of interest, the same cannot be expected from human personnel or someone measuring radiation levels from a helicopter.

Also, unlike conventional measurement techniques, when drones detect radioactivity, the **information can be relayed to the control center in real-time** – while the drone is still in the air. This allows for better on-the-ground decision making, maximizing the protection of collaborators. <https://dronedj.com/2021/05/21/belgium-drones-nuclear-radiation-monitoring/#more-58407>

23May21

Drones set off a land rush in the sky Joann Muller, author of Navigate May 19, 2021 - Economy & Business



Drone light show promoting Genesis luxury car brand's arrival in Shanghai.

Commercial drones have barely taken off, but there's already a fight brewing over who will control — and potentially profit from — the airspace in which they'll fly.



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Communities and companies right now are hashing out the rules and norms that will shape where and how drones transform the skyline over the next decade. Drones are already used by the military, but they could transform daily work across a host of industries, from insurers inspecting storm damage to retailers delivering packages. They can also perform choreographed light shows or display digital billboards in the sky.

- Hyundai's luxury brand, Genesis, for example, celebrated its recent arrival in China by using a record [3,281 illuminated drones to create its logo](#) and the image of a car over Shanghai's skyline.
- Another Chinese company displayed a [floating QR code](#) that linked to a gaming site, in a [scene](#) right out of "Blade Runner."

Yes, but: As with other innovations like self-driving cars, drone technology is advancing faster than the legal framework meant to regulate it.

With the federal government moving slowly, some state and local lawmakers want to set their own rules.

- Just as communities can limit someone from riding a skateboard on the sidewalk, local officials argue they should be able to set rules about flying a drone over their community.
- Texas, Louisiana, Mississippi and West Virginia are among states proposing laws that would charge fees to lease airspace directly above public roads —essentially creating "toll lanes" in the sky.

The drone industry strongly objects, saying the FAA should have sole responsibility for managing airspace throughout the U.S. <https://www.axios.com/commercial-drones-land-rush-06bca87c-0dd0-4508-8265-c4b8e16427f2.html>

Alabama Power team wins industry award for drone study Mitchell Kilpatrick May 21, 2021



An Alabama Power team working in partnership with the Electric Power Research Institute conducted a study that indicates using drone aircraft in storm response can perform inspections up to **four times faster** than traditional ground inspections.

Restoring power quickly and safely to customers is [Alabama Power's](#) No. 1 priority after a storm or disaster. The company is continuously researching ways to improve restoration times and



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methods. One group recently partnered with the [Electric Power Research Institute \(EPRI\)](#) to study the values and limitations of drones in storm response.



The Alabama Power team, led by Distribution Engineering Services Manager Bobby Hawthorne, had been working on incorporating UAS into storm damage response for a few years when it decided to partner with EPRI, which had been working on similar issues.

The project had three stages. The first stage evaluated vendors in a training environment with simulated damage. Then, the team explored drone approaches to inspect actual distribution circuits in the field. Finally, Alabama Power used UAS after a real storm that affected the same circuit used during testing.

Alabama Power and EPRI determined that using UAS in storm response can be up to four times faster than traditional ground-based inspections. During the study, the team received special permission from the [Federal Aviation Administration](#) to fly the drones beyond the employees' line of sight to improve their research. The team received its EPRI award in a virtual ceremony in April. <https://alabamane.wscenter.com/2021/05/21/alabama-power-team-wins-industry-award-for-drone-study/>

24May21

Flylogix and Seekops reach key milestone for North Sea methane emissions measurement

WORK HEADLINE NEWS GEORGINA FORD MAY 23, 2021



In a recent field trial, their unique Unmanned Aerial System and sensor delivered detection rates capable of verifying emission rates in line with the very low levels of methane associated with normal operations of many facilities in the North Sea (<2.5 kg/hr) Previous studies have relied on survey aircraft with equipment normally used for research activities.

It is part of a collaborative trial with support from energy majors, including bp, Total, Equinor, Harbour Energy and Shell. In discussion with the operators, Flylogix conducted a pan-UKCS asset review using data reported through the Environmental and Emissions Measurement System, establishing the requirement for lower detection performance at 10 kg/hr. This became the initial target, with a stretch target of 3kg/hr.



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In 2020, Flylogix and SeekOps embarked on an ambitious development program. After lab-testing by the SeekOps team, the new technology was trialled in the air at a Flylogix test facility. Offshore field trials commenced in March 2021. The first phase demonstrated a lower detection limit of **2.5kg/hr** – a 93% increase in performance. The lower detection limit is influenced by variables including weather and stand-off distance from the asset. A series of controlled release measurement flights are now scheduled to validate these performance thresholds further. The trials continue with measurement across a wide range of asset types in the northern, central, and southern North Sea and West of Shetland. <https://www.commercialdroneprofessional.com/flylogix-and-seekops-reach-key-milestone-for-north-sea-methane-emissions-measurement/>

Los Angeles International is second US airport to trial drone detection systems

May 24, 2021 Jenny Beechener Counter-UAS systems and policies, UAS traffic management news



The Transportation Security Administration has selected Los Angeles International Airport to test technology to detect, track, and identify (DTI) drones that are encroaching on restricted airspace.

TSA announced last week that similar technology is due to be tested at Miami International Airport beginning in early July.

TSA selected LAX as an UAS DTI test bed due to its diverse aviation operations, large number of enplanements, frequency of UAS activity, and high passenger volume. This project will utilize a range of security and surveillance technologies including radar, thermal imaging, and artificial intelligence.

Unmanned Aircraft Systems can pose a threat to transportation security when flown too close to certain aviation, surface, or related transportation venues. While many are equipped with Global Positioning System software that prevents their use in restricted locations, there are many operators who do not follow safety restrictions and consequently pose a security and safety risk to individuals, infrastructure, and airplanes.

In support of the Department of Homeland Security's role in UAS security, TSA is collaborating with airport, local law enforcement and interagency partners including the DHS Science & Technology Directorate. Together they will test the effectiveness of certain DTI technologies against threats to aviation, surface, and related transportation domains. The technologies will be evaluated in laboratory and operational field environments. <https://www.unmannedairspace.info/counter-uas-systems-and-policies/los-angeles-international-is-second-airport-after-miami-selected-by-us-security-agency-for-drone-detection-tests/>



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NASA video details UTM framework for a 'safe and affordable airspace operation system'

May 24, 2021 Jenny Beechener Emerging regulations, UAS traffic management news, Urban air mobility



A YouTube video from NASA describes how the agency's Unmanned Traffic Management concept operates 'without burdening the current air traffic control system'; 'takes advantages of digitization and connectivity'; accommodates 'a very large number of drones'; and 'satisfies a large number of new entrants' in a 'safe and affordable airspace operation system'.

According to NASA: "In the past few years, more than an estimated 700,000 unmanned aircraft systems have been purchased and are flying around our skies. They can be used in our daily lives for tasks such as delivering goods to our door steps, monitoring traffic on our highways, recreational uses and for medical needs – to name just a few. Imagine what our world would look like in a few years if a dependable system of control were not put in place.

"NASA has set out to create a research platform that will help manage large numbers of drones flying at low altitude along with other airspace users. Known as UAS Traffic Management, or UTM, the goal is to create a system that can integrate drones safely and efficiently into air traffic that are already flying in low altitude airspace. With UTM, package delivery and recreational flights won't interfere with helicopters, airplanes, nearby airports, or even drones being flown by first responders."

To view the video visit: <https://www.youtube.com/watch?v=vepo3q87Grc>
<https://www.unmannedairspace.info/emerging-regulations/nasa-video-details-utm-framework-providing-safe-and-affordable-airspace-operation-system/>

AirMarket and TELUS demonstrate BVLOS drone operations in Canada

May 23, 2021 Jenny Beechener UAS traffic management news



UTM company AirMarket and communications company TELUS Corporation completed a live field demonstration of the SKYLINK business solution at an operational TC Energy site in Alberta, Canada at the end of April 2021. The trial integrated Unmanned Traffic Management (UTM), drones-optimized cellular connectivity, computer vision, and an operational concept that allows for the use of multiple drones to efficiently conduct infrastructure surveillance in the national airspace.



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The flight demonstration activities were conducted in coordination with the Petroleum Technology Alliance of Canada and TC Energy as part of planned activities within the Energy UTM Trials (EUT). These trials are supervised by Transport Canada and NAV Canada to provide data for use in regulatory development of UTM and BVLOS drone operations.

Customized mobility services established by TELUS have been integrated with UTM and are being prepared for national deployment. The event demonstrated how connected drones will provide solutions using **Computer Vision** on-board the drone and in the edge cloud. This real-world demonstration showcased the combination of technologies and operations that will provide automated infrastructure surveillance as part of EUT flight operations.

<https://www.unmannedairspace.info/latest-news-and-information/airmarket-and-telus-demonstrate-bvlos-drone-operations-in-utm-environment-to-support-canadas-regulatory-framework/>

Ondas Holdings Announces Definitive Agreement to Acquire American Robotics

HEADLINE NEWS INVESTMENT GEORGINA FORD MAY 20, 2021



American Robotics Is the First Company Approved by The FAA For **Autonomous** Drone Operations Beyond-Visual-Line-Of-Sight

Ondas Holdings Inc., a developer of proprietary, software-based wireless broadband technology, has entered into a definitive agreement to acquire American Robotics, a developer of automated commercial drone systems and the first and only company approved by the FAA to operate its drones beyond-visual-line-of-sight without a human operator on the ground. This acquisition will integrate the two companies' technology platforms and increase automation, data collection, and AI-powered analytics in industrial markets, allowing for the improved maintenance, monitoring and operation of critical infrastructure.

American Robotics brings together IP, a Robot-as-a-Service business model, and its historic FAA approvals to deliver an industrial drone service capable of unlocking the \$100 billion commercial drone market. Unlike other drone technology, American Robotics' Scout System provides autonomy, safety, and analytics with its design and AI-powered software.

<https://www.commercialdroneprofessional.com/ondas-holdings-announces-definitive-agreement-to-acquire-american-robotics-inc/>



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Poland to buy Turkish Bayraktar TB2 drones 24May2021



WARSAW, Poland — Polish Defence Minister Mariusz Błaszczak has announced his ministry will buy **24** Bayraktar TB2 drones from Turkey.

Under the plan, Warsaw will acquire four sets of unmanned aerial vehicles equipped with anti-tank missiles. The deal is to be signed during Polish President Andrzej Duda's official visit to Turkey which kicked off yesterday. "The first set will be delivered to the Polish military in one year."

The planned contract is set to make Poland the second NATO member to operate the UAV which is currently used by Turkey's armed forces. The drone's deployment by Azerbaijan in the armed conflict with Armenia last year triggered interest in the Turkish [drones](#) among Polish decision makers. The Bayraktar TB2 has a flight range of 150 km.

<https://www.defensenews.com/global/europe/2021/05/24/poland-to-buy-turkish-bayraktar-tb2-drones/>

WHY THIS ASIAN AIRLINE IS BETTING BIG ON DRONES May 24, 2021 Sally

French 0 News,



Japanese airline ANA is betting big on drones.

The company perhaps best known for its luxurious passenger flights announced in April 2021 a partnership with Germany-based Wingcopter that could open the door for its dominance in the world of drone delivery.

Wingcopter has long been working on drone delivery. And now given the new ANA partnership, the two aviation companies will conduct trials using Wingcopter's electrical fixed-wing VTOL aircraft to test how it could build a drone delivery network across Japan.

The duo already completed the first phase of testing between March 21 and 26, 2021, when a drone flew between Fukuejima and Hisakajima in Goto City, Nagasaki Prefecture to demonstrate the viability of using drones to deliver medical supplies, with the intent of increasing delivery speeds.



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While it might seem odd to merge a traditional passenger airline with a tech-focused startup, the partnership makes sense: [Star Alliance](#) member airline ANA can provide its insights gained from decades of aviation experience to help Wingcopter understand Japan's local aviation regulations and unique flight conditions. Wingcopter, meanwhile, brings expertise in training drone pilots, mission planning, operation design and maintenance. Check out the video outlining the partnership here: <https://www.thedronegirl.com/2021/05/24/ana-drones/>

New drones and off-road bikes help Warwickshire police fight crime Gill

Sutherland gsutherland@stratford-herald.com 16 May 2021

In the past month, two Rural Officers and three officers from the Rural Specials have been trained on the two drones purchased for the team by local authorities in North Warwickshire Borough, Stratford and Warwick District.



The drones will be used on dedicated operations, patrols, and response to incidents, assisting the team in addressing rural crime and the offenders who target rural communities.

In addition to the drones, two officers from the Rural Crime Team have been trained and are now equipped as part of the force's Dual Purpose Bike Team, who assist on the issue of antisocial behavior caused by off road vehicles such as motorcycles, quad bikes and 4x4 vehicles.



"Since its formation in October 2019, the Rural Crime Team have recovered nearly £700,000 worth of agricultural vehicles, plant and tools and this additional equipment will assist them further in targeting criminals affecting farms and rural areas. <https://www.stratford-herald.com/news/police-go-above-and-beyond-with-new-drones-and-bikes-9199514/>

The future of crimefighting tech is here: drones and RoboDog Post Editorial Board

May 16, 2021



The future of nonlethal crimefighting is here — and progressives and civil libertarians are losing their minds. Back on May 6, FBI agents, armed with a search warrant, flew a surveillance drone inside a gun suspect's apartment in upstate Poughkeepsie. Feds used the nonlethal drone to direct those in the home to exit immediately. The drone's video feed allegedly caught one of three



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persons inside the apartment tossing a 9mm handgun out of a window. No one in the apartment or any law enforcement officer was injured during the execution of the warrant.

“Flying drones in public air space is invasive enough, but using it inside of a person’s home is completely unconstitutional,” fumed Albert Fox Cahn, a civil-liberties advocate. No: If officers have the legal right to enter themselves, then sending in an unarmed robot is just as kosher — and safer for everyone.



In New York City, the NYPD’s testing of a robotic “Digidog” was slammed by alarmists and naysayers like Cahn over privacy concerns. City cops first used Digidog to find a gunman hiding in a Brooklyn basement last October, but only when [video of the device](#) trotting on a Bronx sidewalk went viral in February did it spark “Black Mirror” comparisons and fury from hysterical pols — pressure that prompted brass to cancel the \$94,000 testing contract in April after just seven months.

The NYPD saw the 70-pound Digidog (equipped with lights, two-way communications, and video cameras) as a tool to help reduce police and civilian risks of bodily harm. Cops deployed Digidog to the scene of a tense home invasion hostage situation in the Wakefield section of The Bronx in February and to the site of a domestic dispute at East 28th Street in Manhattan in April. <https://nypost.com/2021/05/16/the-future-of-crimefighting-tech-is-here-drones-and-robots/>

Aevum’s Patent Enables Global Logistics Autonomously Anywhere on Earth or in Space May 23, 2021 News



[Aevum, Inc.](#), a provider of autonomous transport services, announced today the issuance of its US Patent, Adaptive Autonomous Aircraft System with Modular Payload Systems.

Five years old as a company, Aevum only recently came out of stealth, announcing its space launch services in 2019. **Within six months, Aevum had won nearly \$1 billion** in publicly-announced contracts from various customers, including the US Department of Defense.

Aevum’s unmanned aircraft system, [Ravn X](#), is **the largest drone in the world**, by mass. It has a gross takeoff weight of 55,000 lbs. All it requires for takeoff, be it for space launch or air transport, is a mile-long runway, a hangar and regular jet fuel. With its fleet of autonomous



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vehicles, Aevum will offer scheduling of precision, express deliveries, ordered from a computer or mobile phone via Aevum's Space Portal SM, in as fast as 180 minutes for launch.

Assuming a typical reusable booster flies 16 minutes per launch mission, at a single launch per month, the best boosters see no more than 4 hours of flight time in a year. On the other hand, the most efficient air cargo companies will utilize their planes up to 15 hours per day, 5,475 hours annually. Aevum's UAS fleet will run nearly 24/7 year-round. "In my company, what matters is asset utilization. My machines will fly around the clock, every day," said Jay Skylus, founder and CEO of Aevum. https://uasweekly.com/2021/05/23/aevums-patent-enables-global-logistics-infrastructure-to-deliver-autonomously-to-anywhere-on-earth-or-in-space/?utm_source=rss&utm_medium=rss&utm_campaign=aevums-patent-enables-global-logistics-infrastructure-to-deliver-autonomously-to-anywhere-on-earth-or-in-space&utm_term=2021-05-24

NASA partners with 5 US states on drone delivery, air taxis Ishveena Singh May. 24th 2021



What is the best way for a local government to integrate cargo delivery drones and passenger [air taxi services](#) into its existing civic transportation infrastructure? Five local and state governments will soon find out, with help from NASA.

Experts from NASA's [Advanced Air Mobility](#) (AAM) mission have agreed to work with local governments on equitable and sustainable integration of drones with other transportation systems. The collaboration falls under the Space Act Agreement, wherein NASA intends to share with partners its learnings about the challenges associated with new types of aircraft, including drones. Five agreements have been signed with the following government agencies:

- Massachusetts Department of Transportation
- Minnesota Department of Transportation
- The North Central Texas Council of Governments Department of Transportation
- The Ohio Unmanned Aircraft Systems Center of the Ohio Department of Transportation
- The City of Orlando, Florida

The plan is to conduct a series of workshops – roping in partners from airport authorities and operators, universities, vehicle and subsystem manufacturers, and infrastructure providers– and collectively work on updating local strategies and creating new policies that could enable AAM. At least four workshops will take place through the summer of 2022.

<https://dronedj.com/2021/05/24/nasa-aam-drone-delivery-air-taxis/#more-58499>



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BVLOS drone test flight corridors are coming to Virginia Ishveena Singh May. 24th 2021



A new agreement between NASA and aviation services company, The Longbow Group, is expected to result in the establishment of beyond visual line-of-sight (BVLOS) flight corridors for Advanced Air Mobility drone flight tests in **Hampton Roads**, Virginia.

The [partnership](#), a part of the Space Act Agreement, will see NASA's Langley Research Center collaborate with the Tennessee-based company on the development of an operational concept and assess the requirements for supporting infrastructure, data sharing, and other factors needed to conduct BVLOS operations.

The test flights, meanwhile, will be conducted between Langley Research Center's CERTAIN (City Environment for Range Testing of Autonomous Integrated Navigation) facility and Longbow's Unmanned Systems Research and Technology Center in Virginia.

Using smaller drones as surrogates for passenger air taxis, this High Density Vertiplex project plans to test the [feasibility of drone taxis in urban environments](#). As such, the collaboration will put emphasis on flight testing, safety risk assessments, documentation, and collaboration with the Federal Aviation Administration to enable routine BVLOS flights.

Other collaborative research areas could include Unmanned Traffic Management, supplemental data service providers, surveillance radars, meteorological systems, data networks, and command and control communications. For this, aerospace company Raytheon Technologies and researchers and students from Hampton University are also expected to participate.

<https://dronedj.com/2021/05/24/bvlos-drone-virginia-aam/#more-58506>

25May21

Tritex NDT's Multigaue thickness gauges released APPLICATION DRONES AT WORK HEADLINE NEWS GEORGINA FORD MAY 25, 2021



Taking thickness measurements at height has always been a requirement, and up until recently, this has been done using scaffolding or rope access techniques. However, with the Tritex Multigaue 6000 dedicated Drone Thickness Gauge, first developed over three years ago, this is now a lot safer and cost-effective than before.



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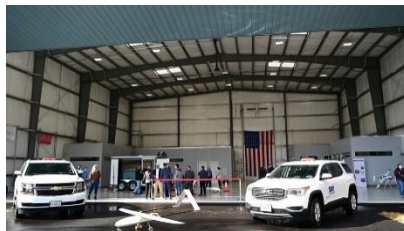
Tritex NDT is one of the only companies worldwide with a dedicated thickness gauge to mount on drones. More than 100 systems have so far been sold, with repeat orders coming from petrochemical companies. The gauge and technology have been improved over three years of development in response to customer's feedback and requirements.

The Multigauge 6000 consists of three parts: the gauge, a gel dispenser, and a probe holder for the correct alignment of the probe. The single crystal probe ensures accurate measurements on curved surfaces, such as storage tanks and pipelines. Thickness readings are transmitted wirelessly up to 500 meters, using its integrated RF transmitter, dedicated software that allows the operator to record measurements, set up templates and remotely control the gel dispenser before touching the probe onto the surface.

The gauge can mount onto any 'work class' drone, with the most popular being the DJI Matrice 210 or 300. Tritex NDT has also developed their custom drone, the Multigauge 6500, specifically designed to provide a complete solution. The Multigauge 6500 'Flying Thickness Gauge' has eight rotors to offer redundancy and propellor guards to be easily used inside tanks.

<https://www.commercialdroneprofessional.com/tritex-ndts-multiguage-thickness-gauges-released/>

MARYLAND AIRPORT EMBRACES DRONE INTEGRATION May 24, 2021 Zach Ryall



In February 2021, a new 7,800-square-foot UAS Autonomous Innovation Center was dedicated at the Salisbury-Ocean City Wicomico Regional Airport in Maryland. In the foreground is a UAV Factory Penguin B.

The vision of this towered airport in rural Maryland becoming **an unmanned aircraft systems hub for the Northeast** was born of ambitious thinking and collaboration between state and local governments, private enterprise, educational institutions, and the airport itself.

The airport, while rural, is not a sleepy field. It is headquarters for Piedmont Airlines, home to roughly 60 GA aircraft, a center for FedEx cargo, and a base for other commercial and public safety operations. Military aircraft from nearby bases are frequent visitors.

In February, a purpose-built 7,800-square-foot UAS Autonomous Innovation Center was dedicated on the airport grounds, nestled in the crux of southern runway extensions. The new hangar space will serve as a UAS think tank and a consulting, training, research, and testing



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facility with the goal of recruiting industry and creating jobs. Stakeholders hope that it will help transform the airport into a soup-to-nuts solution for drone innovation and commerce.

Simply put, an environment is developing where someone with UAS ambitions can move their vision from concept, business plan, and drone design to testing and production and certification with all the right experts locally involved. https://www.aopa.org/news-and-media/all-news/2021/may/24/maryland-airport-aims-to-be-drone-integration-model?utm_source=dronepilot&utm_medium=email

Ziyan UAS Used for Polar Ice Measurement 24 May 2021 Mike Ball



[Ziyan UAS](#) has confirmed that an unmanned aerial vehicle developed by the company has been used to measure the thickness of polar ice. According to the company, this makes Ziyan the **first drone developer in China** whose products have been used for this purpose.

The UAV carried a miniaturized radar payload that was used to take the measurements, which would have been too technically challenging and costly to be gathered by a manned aircraft. The integration of this payload with a UAV marks the first step towards making such measurement technology more widely accessible to the research community. The sensor was able to **look through the ice** and map the topography of the underlying rapidly moving glaciers.

The drone developed by Ziyan was able to operate at extremely low temperatures and was also equipped with **anti-jamming technology** to protect against the strong magnetic fields found at the poles, and a precision obstacle avoidance system to stop the aircraft from crashing into ice ridges. https://www.unmannedsystemstechnology.com/2021/05/ziyan-uas-used-for-polar-ice-measurement/?utm_source=UST+eBrief&utm_campaign=a3d82eb14f-ust-ebrief_2021-may-25_engaged-Subject-Test&utm_medium=email&utm_term=0_6fc3c01e8d-a3d82eb14f-119747501

26May21

Flytrex Gets FAA Approval for Drone Delivery, Flight Over People in Fayetteville, NC Miriam McNabb May 25, 2021

Israeli drone delivery company [Flytrex](#) has received FAA approval for drone delivery and flight over people in Fayetteville, NC. Flytrex performs drone deliveries in cooperation with long-time



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partner [Causey Aviation Unmanned](#). Causey Aviation also operates as a private manned aircraft service under a Part 135.



Flytrex operates as a retail delivery service. Through an app, [customers may order items](#) from the neighborhood Walmart, Starbucks, and other local restaurants and cafes. Now, Flytrex will be able to offer “food, drinks and other goods to thousands of eligible households in the area who can opt-in to the service.” Customers can follow the status of their order along its route “until the package is lowered by wire safely into their backyard.”

The FAA approval does not allow for flights beyond visual line of sight. The project demonstrates, however, just how many homes can be reached even within the bounds of VLOS flight. <https://dronelife.com/2021/05/25/flytrex-gets-faa-approval-for-drone-delivery-flight-over-people-backyard-delivery-of-food-and-retail-goods-in-fayetteville-nc/>

Ehang's New Passenger Drone Designed for Long-Range, Intercity Transportation

Miriam McNabb May 26, 2021



[EHang Holdings Limited](#) (Nasdaq: EH), announces a new electric autonomous aerial vehicle: the VT-30, a long range passenger drone designed for inter-city transportation.

Publicly traded EHang has taken passenger drones to the skies all over the world with active projects in emergency response and [aerial tourism](#) in China and extensive [pilot programs in Korea](#) and [Europe](#), where the company is working with civil aviation authorities. The EH216 was designed for intra-city transportation. The VT-30 adds long range passenger drone capability to EHang's offerings.



“With a hybrid structure, VT-30 is designed to travel distances up to 300km with a flight time of 100 minutes and is designed as a safe, convenient, efficient, eco-friendly and intelligent air mobility solution for inter-city travel,” says an EHang press release.

<https://dronelife.com/2021/05/26/ehangs-new-passenger-drone-designed-for-long-range-intercity-transportation/>



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How drones were critical during the biggest landslide disaster in Norwegian

history HEADLINE NEWS GEORGINA FORD MAY 26, 2021



In disaster situations, first responders often bear the same life-threatening risks as the victims themselves. When Kenny Åserud answered the emergency call on December 30th, 2020 at 4:00 a.m., the scale of the situation quickly dawned: this was the biggest landslide disaster in Norway's history, spanning two (2) square kilometers and affecting the village of Ask in

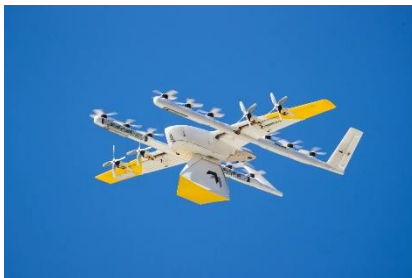
Gjerdrum. With temperatures as low as -23°C.

When the rescue helicopters had airlifted the first survivors to safety, the drone operators started mapping out the area, enabling the command center to coordinate the search from a safe distance. With drones continuously in the air for the next 40 days, this became **Europe's largest drone rescue operation to date.**

As the airspace was initially occupied solely by helicopters, the first drone deployment was only possible after nightfall when both human vision and conventional camera imaging were all but useless. However, the drones utilized the Zenmuse H20T thermal vision payload to create a high-resolution map in the dark.

The 3D map, finalized within the first 24 hours, proved to be a critical source of information as it provided comprehensive situational awareness to ensure a safe and secure rescue operation. <https://www.commercialdroneprofessional.com/how-drones-were-critical-during-the-biggest-landslide-disaster-in-norwegian-history/>

Wing expands service of low-noise drones in booming Aussie market Bruce Crumley
May. 26th 2021



Drone delivery company Wing Aviation says it is expanding service of its noise-reduced unmanned aerial vehicles to a second urban area in the swiftly growing Australian market.

The new drones are equipped with more rotors than the first generation – 16 total, four of which face forward. The blades used are also smaller in size. Jesse Suskin, Wing's community

affairs chief in Australia, told the [Brisbane Times](#) those modifications cut both noise volume and pitch of the craft in flight.



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Canberra has been the hotspot of Aussie homeowner complaints. But there's been enough of an echo across Logan's suburbs for Wing to broaden deployment of the noise-reduced drone flying routes around the capital.

Beyond merely wanting to maintain good relations with its neighbors, meanwhile, there's another terrific motivation behind the company's extra efforts to hush its UAV. **Business in Australia is booming**, and Wing doesn't want to see that momentum slowed by reinvigorated opposition. <https://dronedj.com/2021/05/26/wing-expands-service-of-low-noise-drones-in-booming-aussie-market/>

27May21

First phase of SpaceX's Starlink network nears completion with Falcon 9 launch

May 26, 2021 Stephen Clark



The launch of 60 more Starlink satellites Wednesday from Cape Canaveral could give SpaceX enough spacecraft to complete the first layer of its privately-funded global internet network, but the company shows no signs of slowing its launch cadence this summer.

A [tabulation by Jonathan McDowell](#), an astronomer at the Harvard-Smithsonian Center for Astrophysics and a widely-respected tracker of spaceflight activity, shows SpaceX had **1,574** working Starlink satellites in orbit before the **new group of 60** launched Wednesday. McDowell's table showed the Starlink network had 951 operational spacecraft as of Wednesday, plus hundreds more maneuvering to their final locations in the constellation.

The Starlink network is **the largest satellite fleet in history**, and SpaceX is adding more spacecraft to expand the constellation to provide global internet service. <https://spaceflightnow.com/2021/05/26/first-phase-of-spacexs-starlink-network-nears-completion-with-falcon-9-launch/>

ANRA platform connects all players in drone delivery chain Bruce Crumley May. 27th 2021



Integrated airspace management specialist [ANRA Technologies](#) has announced the rollout of its SmartSkies Delivery platform, which is designed to link all participants in drone delivery services.



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SmartSkies Delivery unifies the entire chain of actors in the drone delivery process through an end-to-end mobile and web-based software platform. Authorized stakeholders will get real-time updates on inventory, tracking, package status, and the progress of drone-transported deliveries. Operational participants can also view, control, and manage their ongoing involvement in the process via the network.

The platform was developed for commercial, government, and medical use by vendors, customers, drone manufacturers, and service providers. ANRA calls SmartSkies Delivery a fully customizable data tool that can be adapted to differing delivery needs and situations. It is also functional anywhere in the world.

The technology is already in use in the [Care & Equity – Healthcare Logistics UAS Scotland](#) project. That program represents the **UK's first** national drone delivery network for medicines, blood, organs, and other medical supplies. It is backed by 13 participating organizations, including ANRA. <https://dronedj.com/2021/05/27/anra-platform-connects-all-players-in-drone-delivery-chain/#more-58823>

Skyports, Future Mobility Campus, Avtrain and Shannon Group bring air mobility to Ireland May 27, 2021 News



Image: Skyports cargo drone port 'Skyport.Cargo'



Image: Russell Vickers (CEO, Future Mobility Campus Ireland) (Left), Julie Garland (CEO, Avtrain) (Centre) and John Drysdale (Business Development Manager, International Aviation Services Centre, part of Shannon Group) (Right)

[Skyports](#), [Future Mobility Campus Ireland](#), [Avtrain](#) and [Shannon Group](#) have signed a memorandum of understanding to establish Ireland's **first passenger and cargo vertiport**. The partnership will work towards launching an operational vertiport at Shannon in 2022, thereby encouraging participation and investment in

Ireland's Advanced Aerial Mobility industry. The long-term goal is the establishment of Ireland's **first air taxi service and routine beyond visual line of sight drone operations**.

Those collaborating in this venture are: Skyports, a leading passenger air taxi and cargo drone vertiport provider; Future Mobility Campus Ireland, Ireland's first testbed for future mobility; Avtrain, Europe's drone training and certification body; and Shannon Group's International Aviation Services Centre.

The consortium has begun working towards launching beyond visual line of sight proof-of-concept operations in September 2021. These flights will demonstrate the viability of unmanned aerial vehicles and highlight the benefits to urban and rural areas of Ireland.



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https://uasweekly.com/2021/05/27/skyports-future-mobility-campus-ireland-avtrain-and-shannon-group-join-forces-to-bring-advanced-air-mobility-to-ireland/?utm_source=rss&utm_medium=rss&utm_campaign=skyports-future-mobility-campus-ireland-avtrain-and-shannon-group-join-forces-to-bring-advanced-air-mobility-to-ireland&utm_term=2021-05-27

28May21

Verge Aero Drone Show for Armed Forces Day: 180 Drones, Precision-Animated 3D Shapes Miriam McNabb May 27, 2021



Drone shows have progressed from being an unusual fireworks alternative to being a must-have display in their own right, **an art form** that combines creativity with technical expertise to create stunning spectacles. Drone shows also demonstrate the precision and complexity of formations that can be accomplished by drone fleets as the software used to control the drones has evolved.

Last week in Georgia, the “annual ‘Thunder Over Evans’ event returned for 2021 following the relaxation of COVID restrictions, offering an opportunity for the community to come together to honor members of the armed forces. Event producers supplemented their traditional firework display with drones, ramping up the visual spectacle using Verge Aero’s control capabilities. The result was a choreographed vision of colorful and dynamic firework explosions and drone imagery as Verge Aero’s fleet flew the US flag, spelt out ‘U-S-A’, and military logos from all five services, all perfectly synced to an accompanying soundtrack.”

Show producer Shane Thompson said, “This year, the wonder team of Verge Aero joined us. They took our event to a level that we could not even imagine. They were easy to work with, made edits that we asked for and even incorporated designs that we had in mind for our show.” <https://dronelife.com/2021/05/27/verge-aero-drone-show-for-armed-forces-day-180-drones-precision-animated-3d-shapes/>

DOLLY PARTON THEME PARK TO GET DRONE LIGHT SHOW THIS SUMMER May 28, 2021 Sally French The Drone Girl News



Dollywood, located in Pigeon Forge, Tennessee, is set to be the backdrop for a new, recurring Intel Drone Light Show this



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summer. The performances will take place **each evening** during the park's Summer Celebration, which runs from June 25-July 31.

The show is being described as "a multi-sensory drone light show that creates a symphony of light in the sky above the Pigeon Forge park. Representing a true **evolution** in traditional theme park entertainment, the sensational show uses nearly **400 drones** to animate the spectacular Dollywood story. The drone performance is integrated into a musically choreographed fireworks show, creating a visual and audial event of epic proportions."

The shows are being operated by **Intel's** drone light show team, which uses its "Shooting Star" drones to fly into dynamic shapes and animations. Each drone is less than a foot in diameter and weighs less than a pound, serving as a pixel of light that — when combined with tens and sometimes hundreds of other Shooting Star drones — illuminates the night sky.

<https://www.thedronegirl.com/2021/05/28/dolly-parton-theme-park-to-get-drone-light-show/>