UAS and SmallSat Weekly News

Contents

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SpaceX marks 50 Starlink internet satellite launches with Thursday's liftoff Jamie Groh Florida Today

SpaceX marked 50 launches of its Starlink satellite constellation Thursday with July's first Falcon 9 mission from Florida.

The 9:11 a.m. ET Falcon 9 liftoff boosted another batch of 53 Starlink internet-beaming satellites to orbit shortly after vaulting off the LC-40 launch pad at Cape Canaveral Space Force Station.

This was the 13th launch for this booster, a feat equaled by only one other booster in SpaceX's inventory. The satellites will spend the coming weeks spacing out while raising their orbits to reach a final destination about 350 miles above the Earth's surface. Thursday's deployment brings the total amount of Starlink satellites in orbit to over 2,500 since the first mission launched in 2019.

The company now offers basic satellite internet plans beginning at $110 a month with service available across a swath of North America, Europe, and Australia. In addition, SpaceX recently began offering an option for satellite internet dishes for RV vehicles available across the country.

About nine minutes after liftoff the Falcon 9 first stage somersaulted for a return trip. SpaceX confirmed that the rocket landed on the "Just Read the Instructions" drone ship stationed in the Atlantic Ocean just a short time later. The booster should return to Port Canaveral towed in by tugboat aboard the drone ship in a few days' time.
https://www.floridatoday.com/story/tech/science/space/2022/07/07/spacex-falcon-9-boosts-50th-stalink-satellite-internet-mission/7828452001/

US military's mysterious X-37B space plane sets new spaceflight record Brett Tingley published about 17 hours ago

As of today (July 7), the X-37B has been in Earth orbit for 781 days, breaking its previous record of 780. The reusable vehicle designed and built by Boeing is currently flying on its sixth mission which launched on May 17, 2020.

Boeing Space announced the milestone today(opens in new

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tab) on Twitter, writing that the space plane "has set another endurance record — as it has on every mission since it first launched in 2010" while also thanking the U.S. Air Force, the U.S. Space Force, and other X-37B team members.

The X-37B's current mission includes several classified payloads, but some of its on-board experiments have been made public. One such experiment deployed last year tested the U.S. Naval Research Laboratory's Photovoltaic Radio-frequency Antenna Module, or PRAM, a small pizza-box-sized device aimed at converting solar power into microwaves which can then be beamed back to Earth from orbit. https://www.space.com/x-37b-space-plane-mission-duration-record

Russia-Ukraine War: Russia claims to use electromagnetic anti-drone gun

JERUSALEM POST STAFF JULY 8, 2022

Turkish-made Bayraktar TB2 UCAV

Russia claims to have made use of a new advanced weapon system in its ongoing invasion of Ukraine: An anti-drone gun, Russian media outlet TASS reported, citing an unnamed security source.

The weapon, identified as the Stupor, was described in the report as an advanced electromagnetic weapon developed by the Russian Defense Ministry's Main Robotics Research and Test Center that severs the connection between drones and their operators. Just as you press a button, Stupor jams the operator's signal to the drone. After that, the drone is neutralized and forced to land in a designated area.

Ukrainian troops have made considerable use of drone warfare against the Russian invaders. The most well-known line of drones in the Ukrainian arsenal is the Turkish-made Bayrakter drone, which has seen considerable success in the ongoing war.

In addition, Ukraine is also working on obtaining new advanced drones from the US. These drones are known as MQ-1C Gray Eagle drones, which can be armed with devastating Hellfire missiles, can also be used to gather intelligence, and can fly over 30 hours.
https://www.jpost.com/international/article-711401

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EPIC VIDEO SHOWS AUTOFLIGHT AIR TAXI ACTUALLY IN ACTION June 28, 2022 Sally French

It was a treat when eVTOL pioneer AutoFlight released a new full scale, proof-of-concept, full test flight video for what's called Prosperity I, an air taxi that takes off vertically like a helicopter, but also operates like an airplane in flight.

While Drone Girl typically doesn't report on far-fetched proof of concepts, AutoFlight is fairly unique, and creates cause for an exception. The company is a new player in the drone industry, using artificial intelligence, autonomous driving, 5G, and breakthrough materials to drive developments in the eVTOL industry. AutoFlight is based in Shanghai, but recently established European offices in Augsburg, Germany and recently appointed former Airbus program manager and 26-year aviation industry veteran Mark Henning as its Managing Director.

The roughly 8-minute lvideo was posted to the AutoFlight YouTube channel this month, marking the company's second full scale proof-of-concept video for its air taxi Prosperity I. Watch the latest AutoFlight video: https://www.thedronegirl.com/2022/07/08/autoflight-prosperity/

UK's chemo drone delivery program is finally ready for take-off Ishveena Singh - Jul. 8th 2022

Britain's health service, NHS, says its cancer patients will be the first in the world to benefit from chemotherapy delivered by drone as part of a new trial.

The chemo drone delivery program, which has seen many delays since it was first announced in 2021, is finally gearing up to make its first flight in the coming weeks.

NHS chief executive Amanda Pritchard explains the trial will start on the Isle of Wight. Chemo will be flown directly from the pharmacy at Portsmouth Hospitals University NHS Trust to St Mary's Hospital, where staff will collect it before distributing it to hospital teams and patients.

Using drones will cut down the usual delivery time from four hours to 30 minutes. This will be a remarkable achievement since some chemotherapy doses have a short shelf life, and hence, are difficult to transport. In addition, each drone delivery will replace at least two car journeys

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and one hovercraft or ferry journey per delivery – saving carbon emissions and contributing to improving air quality for patients and the community.

Pritchard hails delivering chemo by drone as an "extraordinary development for cancer patients" that shows how the NHS will stop at nothing to ensure people get the treatment they need as promptly as possible – while also cutting costs and carbon emissions. https://dronedj.com/2022/07/08/chemo-drone-delivery/#more-83342

EHang secures $150 million in additional air taxi and AAM funding Bruce Crumley - Jul. 8th 2022

EHang said the agreement involves Guangzhou Branch of the Agricultural Bank of China providing a comprehensive range of banking services for its future air taxi and other AAM activities, including $149 million in "indicative credit facilities" as it works toward launching services. The deal with the Guangzhou Branch – ranked solidly within the world's top 10 commercial banks– is intended to secure sufficient financing for EHang's research and development, testing, certification, manufacturing, sales, and operation of the EH216S for passenger transportation.

Addition of that sizeable financial ballast may help quell occasional jitters markets and observers have experienced about EHang's ability to bring the EH216S air taxi to market in a timely fashion, and broaden its AAM deployment beyond the company's domestic China market. https://dronedj.com/2022/07/08/ehang-secures-150-million-in-additional-air-taxi-and-aam-funding/#more-83326

Optelos on Digital Twins and Immersive Data Visualizations: Beyond Drone Data

Miriam McNabb July 07, 2022

DRONELIFE spoke with Optelos VP of Operations Neil Inman about Digital Twins – rapidly becoming an industry standard for asset inspections – data management, and why he sees industry finally beginning to scale their drone inspection programs.

Operational improvement is the name of the game, Inman says. In his view, for the industry to reach maturity, providers will need to ensure that they've addressed 3 points: capture and

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utilization of relevant data, intelligent interpretation of those data sources, and integration with the wide variety of systems already entrenched in large enterprise organizations to integrate this valuable data into existing workflows.

Digital Twins are highly detailed and accurate 3D representations of physical assets, typically in the form of what are called 3D point clouds and 3D mesh models of physical assets: things like oil and gas equipment, telecom towers, or wind turbines. These types of Digital Twins are a relatively new technology, made possible as drones have made gathering the aerial data from all sides required to create digital twins easier and less expensive.
https://dronelife.com/2022/07/07/optelos-on-digital-twins-and-immersive-data-visualizations/

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Thermal drones seek survivors after deadly Italy glacier collapse 04/07/2022

Canazei *(Italy) (AFP)*

Authorities said they did not know how many climbers were hit when the glacier gave way Sunday on Marmolada, the highest mountain in the Italian Dolomites.

"We found bodies torn apart, in a shapeless tide of ice and debris stretching over 1,000 metres (3,280 feet)," Gino Comelli from the Alpine Rescue Service told the Corriere della Sera daily Monday.

The disaster struck one day after a record-high temperature of 10 degrees Celsius (50 degrees Fahrenheit) was recorded at the glacier's summit.

Emergency services spokeswoman Michela Canova told AFP an "avalanche of snow, ice and rock" hit an access path at a time when there were several roped parties, "some of whom were swept away". The total number of climbers involved was "not yet known", she said.

Helicopters and sniffer dogs were called off as night fell and amid fears the glacier may still be unstable. But rescuers used drones equipped with thermal cameras to continue the search overnight and early Monday, Canazei mayor Giovanni Bernard told AFP.
https://www.france24.com/en/live-news/20220704-thermal-drones-seek-survivors-after-deadly-italy-glacier-collapse

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Field Tests Help Prepare NASA Tech for Fire Season Jul 1, 2022

Yasmin Arbab, a research associate at NASA's Ames Research Center, tests a prototype device designed for firefighting drone operators, while piloted aircraft perform fire-training operations in the sky, in Redding, California, on May 3, 2022.

One element of the solution developed by NASA's Scalable Traffic Management for Emergency Response Operations (STEReO) project focuses on firefighters who operate Unmanned Aircraft Systems. STEReO's prototype device, called the UAS pilot's kit (UASP-kit), notifies drone pilots where crewed aircraft are positioned, allowing them to safely stay out of the way.

The NASA team evaluated their UASP-kits in real-life settings at two field tests this spring – one with multiple stops across the southern United States, the other in Northern California.

Lynne Martin, a research psychologist at NASA's Ames Research Center and member of the Scalable Traffic Management for Emergency Response Operations (STEReO) project, observes fire-response professionals preparing to use an unmanned aircraft system to conduct a prescribed burn in Bankhead National Forest, Alabama, in March 2022.

In March, STEReO team members observed U.S. Forest Service personnel working at prescribed burns in eight national forests across Georgia, Alabama, and Mississippi. These intentional fires are started with aerial-ignition platforms, drones that precisely drop small incendiary balls while under the control of a remote pilot. Forest Service trainees were learning the ropes.

The NASA team brought four of their UASP-kits to these events, taught Forest Service personnel how to operate them, and then observed as the firefighters used the technology during two weeks of real-world missions. https://www.nasa.gov/feature/ames/field-tests-help-prepare-nasa-tech-for-fire-season

Drone Pilot Uses Infrared and 180x Zoom to Save Animals from Disaster JUN 30, 2022 MATT GROWCOOT

Aerial cinematographer Doug Thron uses a commercial drone equipped with both an infrared and a normal camera to detect and save trapped animals from disaster zones — including most recently in Ukraine.

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Thron uses a DJI Matrice 210 with a Zenmuse Z30 lens that allows for a total magnification of 180x. The drone that he uses has an infrared camera attached that will detect an animal's body heat, then using his zoom, he can check to see whether his infrared reading is accurate.

Speaking to *PetaPixel*, he explains how he navigates areas of devastation to help trapped and helpless animals, who are innocent victims of a tornado, wildfire, or most recently, a bloody war.

"I was in the Bahamas after a big hurricane and was using my drone to try and find dogs in the rubble. It was super hard because the piles were 30 foot tall. "I thought if I could put an infrared camera on it, I could see the body heat of the animals. I tried it out, and I was blown away because it worked so well," explains Thron, who is based in Miami.

"The next thing you know, after five months in the Bahamas rescuing dogs, I went straight to Australia to rescue koalas due to the wildfires. Because it was so hot in the trees, you'd get false readings. So, I got the idea to put custom spotlights on the drones where I can turn the spotlight on, then toggle back and forth between an infrared camera and a regular camera." https://petapixel.com/2022/06/30/drone-pilot-uses-infrared-and-180x-zoom-to-save-animals-from-disaster/

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ACT NOW TO SPEAK DURING NEXT FAA BVLOS MEETING July 9, 2022 Sally French

There's another FAA BVLOS meeting set for this month.

The Unmanned Aircraft Systems Beyond Visual Line of Sight Aviation Rulemaking Committee (also known as ARC), which released its final report in March 2022, is holding a public meeting. The public FAA BVLOS meeting is set for Tuesday, July 26 between 5:30 p.m. and 7:30 p.m. ET. It'll all happen online, so you can participate no matter where in the world you are.

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If you still want your voice heard but you either missed the deadline, you need more than five minutes, or simply aren't a fan of public speaking, you can still participate. Written comments will be accepted through Tuesday, August 2, which is after the meeting (thus you can write in and provide feedback of what was discussed at the meeting). Written comments can be sent to the same email address at 9-FAA-UAS-BVLOS@faa.gov.
https://www.thedronegirl.com/2022/07/11/july-faa-bvlos-meeting/

Navy Demos New Mine Countermeasure Prototype on Fire Scout July 8, 2022 by Seapower Staff

PATUXENT RIVER, Md. — The Navy recently demonstrated a mine countermeasure prototype technology aboard the MQ-8C Fire Scout UAS at Eglin Air Force Base, Florida, July 7.

The objective of the demonstration was to gather performance data for both the Fire Scout and Single-system Multi-mission Airborne Mine Detection (SMAMD) System to inform future mine countermeasure (MCM) integration.

"The team successfully demonstrated that the prototype SMAMD System effectively operates as designed aboard the MQ-8C Fire Scout unmanned helicopter in relevant real-world environments," said Capt. Thomas Lansley, Fire Scout program director.

The team conducted operations from the Naval Surface Warfare Center using drifting, tethered and moored mines from beach zone to deep waters. They gathered data day and night, across all water depths and in mild to difficult weather conditions.

The demonstration also proved the reliable and repeatable performance of the MQ-8C Fire Scout. The air vehicle handled the dual podded system with ease, being the first MCM capability flown on the MQ-8C as well as the heaviest payload carried to date. Fire Scout successfully operated in restricted and unrestricted air space alongside other aircraft platforms. https://seapowermagazine.org/navy-demos-new-mine-countermeasure-prototype-on-mq-8c-fire-scout/

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AeroDelft Student Team Flies Hydrogen Phoenix Prototype Hanneke Weitering July 8, 2022

AeroDelft's Phoenix Prototype makes its first test flight in the Netherlands, on June 14, 2022.

A team of students at Delft University of Technology in the Netherlands has successfully flown the first prototype of its Phoenix hydrogen-powered aircraft.

The AeroDelft student team aims to promote the use of liquid hydrogen as an alternative to conventional aviation fuels by developing two hydrogen-powered aircraft: the remotely piloted Phoenix Prototype and the two-seat Phoenix Full Scale, which the team revealed Thursday with a taxi run during the annual AeroDelft Summer Event at Breda International Airport in the Netherlands.

Initial flights of the uncrewed prototype will be powered by electric batteries, but the team plans to shift to gaseous hydrogen—which is easier to work with than liquid hydrogen—with the goal of developing a piloted, liquid hydrogen-powered aircraft by 2025.

The Phoenix Prototype, a 1:3 scale model of the aircraft, took to the skies for the first time on June 14. The battery-powered prototype, which looks like a glider, flew for 14 minutes and reached an altitude of 1,150 feet. Data from this test flight will pave the way for the AeroDelft team to modify the aircraft to run on hydrogen power. https://www.ainonline.com/aviation-news/aerospace/2022-07-08/aerodelft-student-team-flies-hydrogen-phoenix-prototype

Dominion Energy and Skydio secure beyond visual line of sight waiver July 8, 2022 Jenny Beechener

The Federal Aviation Administration has granted Dominion Energy, in partnership with Skydio, a Close Proximity, Low Altitude (CPLA) waiver authorizing Beyond Visual Line of Sight (BVLOS) flights enabling an array of inspections at more than 40 energy generation facilities across 7 states. The waiver is the result of collaboration between Dominion Energy and Skydio in the FAA BEYOND Program as part of the Virginia team, which is led by the Virginia Tech Mid-Atlantic Aviation Partnership with the Virginia Innovation Partnership Corporation.

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The approval will enable Dominion to fly both safely and efficiently at dozens of facilities to maintain the supply of power to customers in seven states.

With layers of mitigation measures, including Skydio technology, the FAA waived the requirement for the human pilot to see the drone throughout the entire flight or for an additional crew member to constantly scan the airspace. This enables Dominion to conduct important timely inspections in an efficient manner, without compromising safety.
https://www.unmannedairspace.info/latest-news-and-information/dominion-energy-and-skydio-secure-beyond-visual-line-of-sight-waiver/

SAE, AUVSI call for presentations for 'Flight Path to UAM' forum 27-28 September July 7, 2022 Jenny Beechener UAS traffic management news

SAE and AUVSI are partnering to host the *Business of Automated Mobility:Flight Path to UAM* forum on September 27-28, 2022. The free virtual event will enable attendees to engage with industry and government on regulatory outlook, vehicle development and production, operational management, UTM, safety and security. AUVSI has opened a call for presentations, due by 5 August 2022.

Submissions are invited in any of the following categories: Vehicle Design & Integration, Infrastructure Development, Airworthiness Standards & Certification, Vehicle Noise, Weather-tolerant Vehicles, Inclusive Design, Manufacturing & Supply Chain, Safe Urban Flight Management, Increasingly Automated Vehicle Operations, Certification & Ops Approval, Ground Ops & Maintenance, Remote Pilot Technology and Autonomy, Spectrum and C2/C3, Risk Calculation and Data Analysis, Public Acceptance, Social Equity, Safety Management Systems, Workforce development/Operators, Environmental Impact.
https://www.unmannedairspace.info/latest-news-and-information/sae-auvsi-call-for-presentations-for-flight-path-to-uam-forum-27-28-september/

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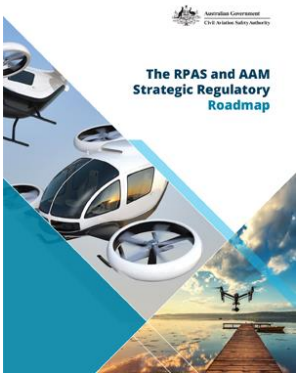
Volcanic Survey by Drone: HexaMedia Completes Mission in Japan 2,500m Above Sea Level Miriam McNabb July 11, 2022

The flight was completed beyond visual line of sight (BVLOS), using UgCS for 3-dimensional flight route planning and automatic navigation. HexaMedia completed the mission at night, as sunlight affects the surface temperature of active volcanos.

Drone takeoff and landing locations were set up at a safe distance from the volcano, outside the restricted area at the foot of the mountain.

Operators collected videos and infrared images of the interior of the crater of Mt. Asama, an active volcano in central Honshū on Japan's main island. Japan's Meteorological agency hopes that by monitoring geothermal activities and gathering data to better understand the volcano, communities will have more warning before an eruption or dangerous event. https://dronelife.com/2022/07/11/volcanic-survey-by-drone-hexamedia-completes-mission-in-japan-2500m-above-sea-level/

The Australia RPAS and AAM Strategic Regulatory Roadmap



The Remotely Piloted Aircraft Systems (RPAS) and Advanced Air Mobility (AAM) Strategic Regulatory Roadmap outlines our approach for RPAS and AAM regulations over the next 10 to 15 years.

It sets out our long-term plan for safely integrating these technologies into Australia's airspace and future regulatory system, alongside traditional aviation.

We will continue to evolve the roadmap to keep pace with new technologies and innovations to support the future of this rapidly growing industry. https://www.casa.gov.au/rpas-aam-roadmap

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Censys Raises $8.3 Million in Oversubscribed Series A Funding Round Phoebe Grinter / 06 Jul 2022

Remote sensing solutions provider Censys Technologies has announced the closing of its Series A Funding Round goal for $8.3 million; a round that was oversubscribed and only expected to raise $8 million.

An innovator in the commercial Beyond Visual Line of Sight Unmanned Aerial Systems industry, Censys Technologies offers a first-of-a-kind remote sensing package that aims to revolutionize the way aerial information is collected for infrastructure, agriculture, public safety and more.

These new funds will be used to help the company transition from a UAS company to an airborne intelligence company. The Series A funds will allow for more flexibility in how customers can buy from Censys, enabling a subscription model for customers to focus on useful information specific to their business.

The Series A funding round was led by Kirenaga Partners, an early-stage venture capital firm focused on high-growth potential, post-validated, pre-commercial, technology-enabled companies in the AgTech, AI, Advanced Materials, CleanTech, Photonics, Robotics and Space industries. https://www.unmannedsystemstechnology.com/2022/07/censys-raises-8-3-million-in-oversubscribed-series-a-funding-round/?utm_source=UST+eBrief&utm_campaign=356d4e5865-ust-ebrief_2022-jul-12&utm_medium=email&utm_term=0_6fc3c01e8d-356d4e5865-119747501&mc_cid=356d4e5865&mc_eid=0d642a9d48

Iran to send hundreds of drones to Russia for use in Ukraine, U.S. says Amy B Wang July 11, 2022

Maj. Gen. Mohammad Hossein Bagheri, center, chief of the General Staff of the Iranian armed forces, visits a display of drones before a drill on Jan. 5, 2021.

Iran is preparing to supply Russia with hundreds of drone aircraft, including advanced models capable of firing missiles, the Biden administration said Monday, publicly revealing what U.S. officials say is a secret effort by Tehran to provide military assistance for Russian's invasion of Ukraine.

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The planned delivery, disclosed by national security adviser Jake Sullivan at a White House briefing, could provide a significant boost to Moscow's efforts to find and destroy Western-supplied artillery and other weapons systems that have slowed the advance of Russian troops in recent weeks. Sullivan said Iran is also preparing to train the Russians on how to use the weapons, with initial training sessions set to begin as soon as this month.

While Russia has its own extensive arsenal of drones, the arrival of Iranian aircraft could help Moscow replenish a key weapons system that suffered heavy losses during the four-month conflict. https://www.washingtonpost.com/national-security/2022/07/11/iran-drones-russia-ukraine/?utm_campaign=wp_post_most&utm_medium=email&utm_source=newsletter&wpisrc=nl_most&carta-url=https%3A%2F%2Fs2.washingtonpost.com%2Fcar-ln-tr%2F3759c11%2F62cd9cc3cfe8a21601e6d877%2F5d1904d69bbc0f06dbb82657%2F64%2F74%2F62cd9cc3cfe8a21601e6d877&wp_cu=42d759511fb332833163513fe68d9118%7C8CF3607F1FEA67A3E0530100007F8E4B

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Make Room in the Garage: AIR ONE Personal eVTOL Successfully Completes Hover Test

Miriam McNabb July 12, 2022 by DRONELIFE Staff Writer Ian M. Crosby

The test saw a full-scale AIR ONE prototype take flight in Megiddo, Israel, where it completed multiple hovers over the course of the day and the subsequent two weeks. Unlike the air taxis that make up much of the developing advanced air mobility (AAM) market, AIR's personal transportation aircraft provides eVTOL flight for individual consumers.

The all-electric AIR ONE can take off and land on any flat surface while carrying a 250kg payload and features a practical range on a single charge at speeds reaching 155 mph. A compact two-seater, AIR ONE can be stored in most garages and driveways.

The company is currently pursuing further strategic partnerships, both within the US and globally, to advance the development of infrastructure and policy related to the growing AAM space. AIR also continues to collaborate with the FAA to complete vehicle certification and establish guidelines for eVTOL pilot licensing.

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https://dronelife.com/2022/07/12/make-room-in-the-garage-air-one-personal-evtol-successfully-completes-hover-test/

ICE CREAM DRONE DELIVERY IS HERE IN TWO LUCKY STATES June 21, 2022 Sally French

Ahead of National Ice Cream Day this coming Sunday (or any day this summer), you might just want to summon your own ice cream drone. And it's all possible thanks to a partnership between drone delivery company Flytrex and The Ice Cream Shop, which is a digital storefront from Unilever. Unilever is the parent company of a handful of ice cream brands including Ben & Jerry's, Breyers, Good Humor, Klondike, Magnum ice cream, Popsicle and Talenti.

Flytrex has also looped in its existing partner, Causey Aviation Unmanned, which is especially useful because it holds a Federal Aviation Administration waiver allowing a delivery radius of one nautical mile.

The ice cream delivery is available in all Flytrex's U.S. locations, which for now are:

- Fayetteville, North Carolina
- Holly Springs, North Carolina
- Raeford, North Carolina
- Granbury, Texas

Once you order, staff members package up your ice cream and load it on the drone. And don't worry about your ice cream melting. Flytrex drone flights clock in under three minutes. Once at your house, the ice cream is lowered by a wire into your front or backyard, with the drone remaining hovering overhead. If you live in an eligible area, you can place your order through the Flytrex app. Even better: in most cases you just pay for the food, but the delivery itself is free. https://www.thedronegirl.com/2022/07/13/ice-cream-drone-delivery-is-here-in-two-lucky-states/

Aardvark holds Kazakhstan's largest open-day event on drone use in the oil & gas industry July 12, 2022 News

On July 8, 2022, at the YKK Training Center in Atyrau, AARDVARK demonstrated new technologies for industrial inspections using unmanned aerial vehicles (UAVs).

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Kazakhstan has huge reserves of oil and gas. More than 100 oil enterprises and more than 250 fields of the Republic of Kazakhstan annually produce about 90 million tons of crude oil. About 20 million tons of oil are processed annually at dozens of oil refineries.

All this infrastructure requires constant and thorough inspection. One of the companies providing services in this sector is Aardvark based in Atyrau. For more than 5 years, Aardvark has been providing various drone services in the Kazakhstan market. We invite representatives of the Oil & Gas industry, oilfield service companies, educational institutions, and the media to participate in a seminar to discuss the current state and vision of the future of the unmanned industry in the Republic of Kazakhstan.

The purpose of the seminar is to share best practices and experience of our company with various companies in the industry that use or plan to use UAV services in their work. Among the confirmed participants of the event are representatives of the largest oil and gas companies in Kazakhstan – NCOC, TCO, and Total.

Particular attention will be paid to regulating the use of unmanned aerial vehicles in the Republic of Kazakhstan. To discuss this topic, representatives of the Aviation Administration of Kazakhstan headed by top management are invited to participate in the seminar. All participants will have the opportunity to learn firsthand about the current state of the industry, ask questions and be the first to know about upcoming innovations. The workshop will be held offline. Participation in the event is free. Pre-registration required.
https://uasweekly.com/2022/07/12/aardvark-holds-kazakhstans-largest-open-day-event-focused-on-drone-use-in-the-oil-gas-industry/?utm_source=rss&utm_medium=rss&utm_campaign=aardvark-holds-kazakhstans-largest-open-day-event-focused-on-drone-use-in-the-oil-gas-industry&utm_term=2022-07-13

Counter-drone specialist Dedrone closes $30 million Series C-1 round Bruce Crumley - Jul. 13th 2022

Counter drone company Dedrone has closed an over-subscribed $30 million Series C-1 fundraising round that will serve to fuel its continued business expansion in the US and abroad. The successful recruitment of backers comes just seven months after the firm attracted $30.5 million in a December Series C effort.

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The investor appeal of San Francisco-based Dedrone reflects the swiftly rising importance of counter-drone capabilities as the numbers and applications of both business and private UAVs taking to the skies continue multiplying. The company produces systems that detect, identify, locate, and if need be, neutralize about 300 different models of craft produced by over 65 manufacturers. Its recently-introduced mobile DroneRapidResponse unit can be deployed in less than 30 minutes, providing continual airspace protection within a 5-kilometer radius of a venue or event. https://dronedj.com/2022/07/13/counter-drone-specialist-dedrone-closes-30-million-series-c-1-round/#more-83451

14July22

Wonder Robotics Scores Seed Funding for Drone Equipment that Clears the Way for Landing

Miriam McNabb July 13, 2022 by DRONELIFE Staff Writer Ian M. Crosby

Drone autonomous flight and landing specialist Wonder Robotics has announced the closing of $4 million in a seed round led by Elron Ventures alongside Besadno Investment Group.

The funds will go towards the expansion of operation and marketing efforts, as well as the development of new technology for further applications.

The currently available beyond visual line of sight technology has yet to be perfected, unable to guarantee sufficiently safe autonomous drone flights and in turn resulting in difficulties for the commercialization of drones. To address these issues, Wonder Robotics created its proprietary "WonderLand" solution for accurate autonomous landings, capable of being installed on any drone. Opening up landing zones in real-time, WonderLand allows for emergency autonomous contingency landings in unprepared locations. Featuring vertical awareness and robust precision landing, Wonder Robotics' solution offers drone safety beyond the operator's visual line of sight, preventing collisions with people, structures, and environmental obstacles. https://dronelife.com/2022/07/13/welcome-to-wonderland-wonder-robotics-scores-seed-funding-for-drone-equipment-that-clears-the-way-for-landing/

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Bristow and Elroy Air Sign Letter of Intent for 100 Chaparral VTOL Aircraft July 13, 2022

SAN FRANCISCO and HOUSTON, July 13, 2022 /PRNewswire/ -- Bristow Group Inc. (NYSE: VTOL), the global provider of innovative and sustainable vertical flight solutions, has signed a Letter of Intent with Elroy Air to pre-order 100 Chaparral hybrid-electric cargo VTOL aircraft.

Bristow plans to use the Chaparral to serve logistics, healthcare, and energy applications. Additionally, the Chaparral provides a solution to challenges helicopter operators are facing across the world including reducing emissions by introducing hybrid-electric powertrain and helping offset the pilot shortage by introducing autonomous aircraft for cargo operations.

The first production version of the Chaparral will carry 300–500 pounds of cargo over a 300-mile range with its hybrid-electric powertrain and redundant vertical and forward-flight propulsors. Goods are loaded into an underslung pod that latches to the fuselage and can autonomously be picked up and dropped off in a 50-foot landing square.

The Chaparral is the flying part of an integrated autonomous aerial logistics system. The vehicle can land, deposit cargo, pick up another load and take-off again in just a few minutes and without operator interaction. The Chaparral can also be remotely piloted to comply with civil aviation authorities and airspace integration policy. https://finance.yahoo.com/news/bristow-elroy-air-sign-letter-123000172.html

Zephyr: Aircraft breaks own record for longest unmanned flight 14 July 2022

The solar-powered Airbus Zephyr has spent 26 continuous days in the air, beating the record it set in 2018. The aircraft has on-board batteries to keep it airborne during the night, so that it doesn't need to stop to refuel. Despite being thousands of miles away, the Zephyr S can be controlled from anywhere in the world.

Flight data shows the aircraft flew from the test range in the US state of Arizona to Belize in Central America, and then back again.

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Tim Robinson, editor-in-chief of Aerospace magazine, told the BBC he thought this distance marked an important milestone for the aircraft. He added that it also opened the possibility for new uses for the aircraft such as communications or helping with rescue missions.

The aircraft can provide imagery like a satellite, but it has the advantage of not having to orbit Earth - it can remain in one position and provide constant updates.

Mr Robinson explained: "It comes back to you. "You can upgrade sensors, you can switch the payloads out, you can upgrade it with new technology."
https://www.bbc.co.uk/newsround/62153468

Volocopter Opens First VoloCity Exhibition: Air Taxis of the Future Miriam McNabb

July 13, 2022 by DRONELIFE Staff Writer Ian M. Crosby

Today, urban air mobility leader Volocopter announced a partnership with Singapore's Institute of Technical Education for the launch of a VoloCity public exhibition featuring free guided tours.

This will be the first-ever exhibition from Volocopter to feature its commercial air taxi model in Asia, as well as its first long-term exhibition open to the global public.

Volocopter's first commercial product, VoloCity is a fully electric two-seater with 18 rotors. The aircraft is currently undergoing the process of receiving certification from the European Union Aviation Safety Agency with the goal of a commercial launch in the next couple of years.

The exhibition, held at ITE College Central's Aerospace Hub, is set to showcase a 3D VoloPort scale model alongside detailed information on both the UAM industry and Volocopter.. Beginning this August, Volocopter will be regularly offering free guided tours, with registration currently available.

Singapore has been working with the company since 2019 when it conducted Asia's first crewed public test flight of an air taxi in a city center over Singapore's Marina Bay. Volocopter recently released a dedicated roadmap showing that its UAM services could generate an estimated SGD

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4.18 billion in cumulative economic benefits and create up to 1,300 jobs in Singapore by 2030. https://dronelife.com/2022/07/13/volocopter-opens-first-volocity-exhibition-air-taxis-of-the-future/

DroneUp Lands New Head of European Airspace Innovation July 13, 2022 News

DroneUp, LLC, an autonomous drone delivery platform and leading drone services provider, today announced the appointment of Sebastian (Seb) Babiarz as its head of European airspace innovation based in Poland. Seb brings 20 years of drone and telecom experience across Europe to one of the fastest-growing drone service providers in North America. Seb was recently COO at Dronehub, the drone-in-a-box provider for automated monitoring and data collection. Before that, he was head of strategic business development at AirMap which DroneUp acquired in December 2021. Seb also previously held the role of Head of AMS Drone Business at Nokia, where he created and grew business opportunities for drone services for mobile networks globally.

With a high appetite for drone services, the European market is ripe for further development and advancement of commercial drone services. Currently, there is a keen focus on commercial drone regulations across Europe, while in the North American market, the focus has been on scaling operations. DroneUp, through its recent expansion with Walmart, has been leading this charge in the United States by providing delivery to 4 million U.S. households while also playing a significant role in the FAA's Beyond Visual Line of Site (BVLOS) Aviation Rulemaking Committee. https://uasweekly.com/2022/07/13/droneup-lands-new-head-of-european-airspace-innovation/?utm_source=rss&utm_medium=rss&utm_campaign=droneup-lands-new-head-of-european-airspace-innovation&utm_term=2022-07-14

15July22

MULTIPLE DRONE FUNDING ROUNDS PROMISE GROWTH, DESPITE RECESSION TALKS July 10, 2022 Sally French

In July 2022, three major funding rounds were recorded among drone-related startups.

This summer's news follows in big footsteps. 2021 was a record-breaking year for the drone industry when investment dollars nearly tripled that of 2020. Yet perhaps even more surprising is that investment in drone companies has set fresh records every year since 2013, according to data tracked by German-based drone analytics and research group Drone Industry Insights.

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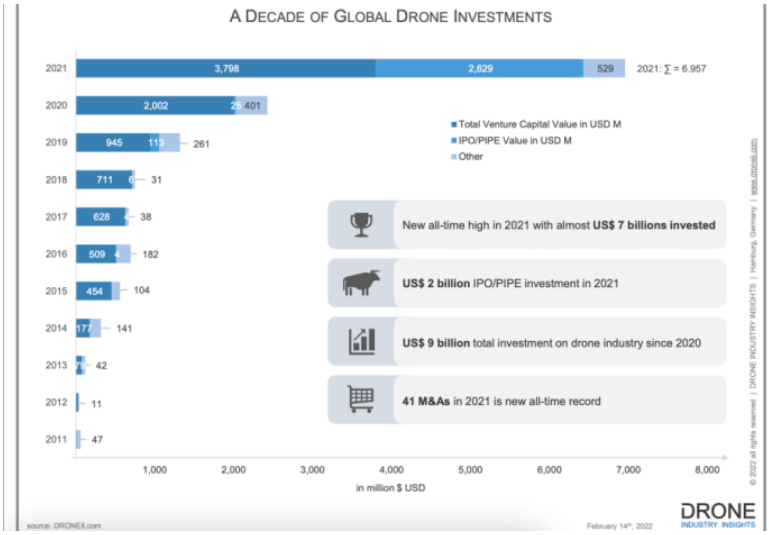

So with that, here are some of the biggest drone startups that received investor funding this July:

Censys Technologies: $8 Million

Censys Technologies Corporation, a remote sensing solutions company based in Daytona Beach, Florida, announces the closing of its Series A Funding Round goal for $8.3 million on July 5. Censys is working in the Beyond Visual Line of Sight (BVLOS) space to build remote sensing packages that help drones collect data for infrastructure, agriculture, public safety and more.

Wonder Robotics: $4 Million

Israel-based Wonder Robotics announced the closing of a $4 million fundraising round. Wonder is a technology company specializing in the autonomous flight and landing of commercial drones, and the company said it intends to use the money to scale up operation and marketing efforts, while developing technology for additional applications.

Dedrone: $30 Million

This one is more anti-drone than drone, but we'll take it. Airspace security company Dedrone on Wednesday announced that it had closed $30 million in a Series C-1 financing round. Led by public safety technology company Axon, this latest funding comes on the heels of the company's $30.5 million Series C in December 2021.

The company already is capable of detecting nearly 300 different drone types across more than 65 different manufacturers, and it operates in 36 countries including four of the G-7 nation governments and nine U.S. federal agencies. https://www.thedronegirl.com/2022/07/15/multiple-drone-funding-rounds-promise-growth-despite-recession-talks/

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