



UAS and SmallSat Weekly News

Contents

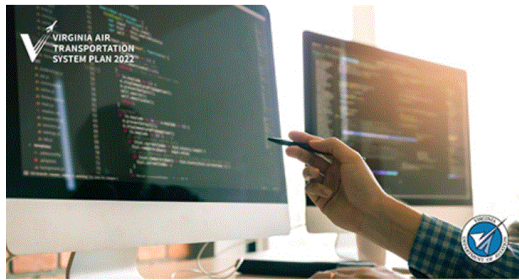
- 2 US Virginia Department of Aviation reports over 2,500 UAS advisories in first year
- 2 How Drones and Robots with A.I. Will Deliver Your Online Order Fast
- 3 Lilium Starts the Next Phase of Flight Testing in Spain
- 4 Drone Company to Launch Small Urgent Package Delivery in Ireland
- 4 Tesla opens Texas Gigafactory with drone show at 'CyberRodeo' event
- 5 Drones help law enforcement collect threat intelligence
- 6 Iris Automation Scores 2nd BVLOS Waiver with Casia G Ground-Based Detect and Avoid
- 6 US Defense Unit awards Skydweller \$14m for development of hydrogen-powered aircraft
- 7 The real industry bottleneck is fear of a mid-air collision – ICAO Drone Enable 2022
- 7 Volatus announces construction of permanent eVTOL vertiport in Wisconsin
- 8 French aerospace company to send solar sail ship out to space
- 8 Vertical Flight Society Continues Record Growth, Exceeds 170 Corporate Members
- 9 Aviation innovator Dufour Aerospace establishes footprint in Montreal, Canada
- 10 EHang receives its largest-ever order for passenger air taxis in Asia
- 11 Archer and Hexcel Partner: Ramping Up eVTOL Manufacturing
- 11 PLA gathers hundreds of arms firms, seeks logistics boost from intelligent drones
- 12 Autonomous MALE UAV Prototype Completed
- 13 US Switchblade Drones for Ukraine Will Include Tank Killers
- 13 GoPro strips down Hero10 camera so FPV drone pilots won't have to
- 14 Volatus Aerospace Provides Drones to Support Ukraine
- 15 Wisk and Skyports Partner to Define Autonomous AAM Infrastructure Operations
- 15 Amentum Provides Unmanned System Research Under \$260M DHS Task Order
- 16 First Surveillance Reapers Handed Over to the Netherlands
- 17 Lockheed Stalker Drone Completes World Record 39-Hour Flight
- 17 Warren County Community College Drone Program is Training an Industry Workforce
- 18 CYCLOTECH AND YAMATO REVEAL INNOVATIVE CARGO EVTOL CONCEPT
- 19 Germany funds research on using drones to service offshore wind farms
- 20 DEUTSCHE BAHN: GERMAN TRAIN SYSTEM TO ADD DRONES
- 20 Freely Alta X on Blue sUAS 2.0 List: Payload Flexibility for Varied Applications
- 21 NASA's Mars helicopter sets new flight records



UAS and SmallSat Weekly News

9Apr22

US Virginia Department of Aviation reports over 2,500 UAS advisories in first year April 1, 2022



“We do not believe that industry is looking for states to implement new regulations; what they are seeking is for states to facilitate consistent information and to make it easy for the industry to know what the ‘ground rules’ are,” said Greg Campbell, director of the DOAV. “This is why the industry is enthusiastically supportive of VA-FIX and other measures the

Commonwealth is taking to spur the advancement of Advanced Air Mobility and the growth of the drone industry while ensuring the skies remain both safe and open.”

“In Virginia, state and local agencies are laying out advisories around incident responses, HAZMAT, search & rescue, critical and sensitive infrastructure, public safety facilities, obstructions, and ground hazards to help pilots avoid risky areas and breaking the law. The VA-FIX shared governance model, including the FIX User Group, brings together diverse stakeholders from across the Commonwealth to work out issues of information sharing and ground space configurations.

Dr. Amber L. Wilson, DOAV’s manager of aviation technology, said, “The result is the clarification of many grey areas in UAS without having to change the law or regulations; enhancing the FAA UTM concept; and providing clearer, higher-quality information to the UAS industry.”

<https://www.legendaryleadersininnovation.com/feeds/486/results/5453fb10949a013ac2060242ac110002>

How Drones and Robots with A.I. Will Deliver Your Online Order Fast WILL

PARKER APRIL 7, 2022



Each time a customer clicks “check out,” another order adds to swirling delivery chaos: trucks clog city streets, drivers circle to find parking, bikes swerve around package carts.

The problem is growing. By 2030, the number of delivery vehicles in the world’s 100 largest cities [will balloon by more](#)



UAS and SmallSat Weekly News

[than a third](#) from 2019, to 7.2 million, McKinsey & Co. predicts.

Could traffic congestion on the ground be reduced by putting more of it into the air? Delivery drone services like Wing offer a glimpse of what drone-normal cities might look like. Operating in Helsinki, the Australian cities of Logan and Canberra, and Christiansburg, Va., Wing has made more than 200,000 drone deliveries—including more than 1,000 in a single day. The 10-pound aircraft carry packages of three pounds or less, including items like sandwiches and coffee, lowering goods to the ground on a 23-foot cord. Through a partnership with [Walgreens Boots Alliance](#) Inc., Wing plans to begin delivering pharmacy items Thursday to homes in the Dallas area.

Urban centers with tall buildings and little open space for landings [pose challenges for drones](#). But major retailers in the U.S. are already preparing, writing drone-usage rights for rooftops and other areas into new leases, says Kris Bjorson, Chicago-based international director of the industrial group at real-estate firm Jones Lang Lasalle. <https://www.wsj.com/articles/drones-robots-warehouses-how-your-online-order-will-change-the-city-11649338872?mod=djemfoe>

Lilium Starts the Next Phase of Flight Testing in Spain Jessica Reed | April 6, 2022



Lilium announced this week that it is now performing test flights in Spain using the Phoenix 2, the company's 5th generation technology demonstrator. This next phase of flight tests is taking place at the ATLAS (Air Traffic Laboratory for Advanced Unmanned Systems) Flight Test Center in Villacarrillo.

Although flight testing has already begun, another demonstrator aircraft—the Phoenix 3—is scheduled to arrive this summer for its first flight. With the addition of a second demonstrator, the Lilium team anticipates being able to accelerate the flight test campaign significantly as well as reducing program risks.

As testing continues, the plan is “to extend the flight envelope through full transition and high-speed flight.” The ATLAS Center provides a large, unpopulated area for aircraft testing, including high-speed wing-borne flight.

Lilium's aircraft is a five-seater electric vertical take-off and landing (eVTOL) jet. The design of the [7-Seater eVTOL configuration](#) was revealed just over a year ago. Lilium also announced a merger with Qell Acquisition Corp. at the same time and became **a publicly listed company**.



UAS and SmallSat Weekly News

https://www.aviationtoday.com/2022/04/06/lilium-starts-next-phase-flight-testing-spain/?oly_enc_id=7021F0632090D7B

Drone Company to Launch Small Urgent Package Delivery in Ireland Jessica Reed | April 5, 2022



This week, Manna Drone Delivery is planning to launch commercial operations of its custom-developed aerospace grade drones. The company claims it is **the largest drone delivery operation in Europe and has raised a total of \$35 million in venture capital funding since 2018**. Manna has been operating since 2020 in Ireland and has recorded about **5,000 real-world deliveries** between the suburbs of Galway and Dublin. The team has also performed close to **90,000 test flights** to date. The upcoming [launch will happen in Balbriggan](#), a suburb of Dublin.

Manna's head of U.S. operations, Andrew Patton, recently shared some details about the company's progress and upcoming goals in an interview with *Avionics International*. "Expect to see partnerships with some extremely large multinational brands in the second half of 2022 or the first half of 2023—both in the U.S., where we will fly in 2022, as well as internationally," he stated.

One challenge that Manna's team hopes to solve is determining how to connect unmanned aircraft system traffic management with current manned air traffic management surveillance systems. https://www.aviationtoday.com/2022/04/05/drone-company-launch-small-urgent-package-delivery-ireland/?oly_enc_id=7021F0632090D7B

Tesla opens Texas Gigafactory with drone show at 'CyberRodeo' event Seth Kurkowski - Apr. 7th 2022



Thursday evening Tesla officially opened its newest [Gigafactory in Texas](#) with an event called "CyberRodeo." To start the celebration, Tesla put on a massive drone show depicting the company's Model Y, upcoming Cyber Truck, and a few memes.



UAS and SmallSat Weekly News

Tesla's GigaTexas plant will begin producing the company's crossover EV, the Model Y using a new battery format, which you can read more about on our sister site [Electrek](#). What we care about is the drone show that took place at the start.

Drone shows have become a popular way for celebrations to put on fantastic displays, forming massive pieces of art in the skies as Tesla did. Some of the displays were the state of Texas, its Model Y and Cyber Truck vehicles.



Tesla chose Austin, Texas, to build its largest Gigafactory yet. GigaTexas will be a one-stop shop for making the Model Y and eventually the CyberTruck. GigaTexas will also serve as Tesla's new world headquarters as Elon said the company outgrew where it was located in California.

<https://dronedj.com/2022/04/07/tesla-opens-texas-gigafactory-with-drone-show-at-cyberrodeo-event/#more-79093>

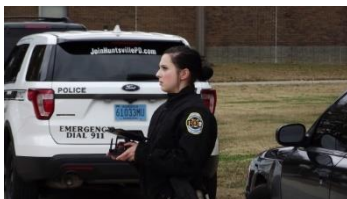
10Apr22

Drones help law enforcement collect threat intelligence *April 6, 2022 Security Staff*



Huntsville, Alabama, with a population of 216,000, prides itself on being a "technology-driven" city. The Huntsville Police Department (HPD) aims to support officers with real-time intelligence, as well as collecting forensic and crime scene information.

HPD took an approach they called "patrol-embedded." Drone pilots are patrol officers working across all precincts. This approach was effective for several reasons: "These officers can respond to an event in precinct in under 5-10 minutes or are on scene anyway as part of their patrol duties," said Chad Tillman, Director of UAS Operations at HPD. "We have also found that this model takes advantage of the officer's knowledge of the area and each precinct's unique needs."



The drone program, which included drones from Autel Robotics, quickly proved its worth, according to Tillman. "Our first operation year, we flew a little over 300 flights with 9 pilots. Last year, we flew **1,500 plus flights**. We can provide major support to traffic investigation, drug interdiction and special teams. <https://www.securitymagazine.com/articles/97377-drones-help-law-enforcement-collect-threat-intelligence>



UAS and SmallSat Weekly News

11Apr22

Iris Automation Scores 2nd BVLOS Waiver with Casia G Ground-Based Detect and Avoid Miriam McNabb April 10, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Safety avionics technology company [Iris Automation](#) has received a waiver for Beyond Visual Line of Sight autonomous operations on behalf of the City of Reno, a participant in the [FAA's BEYOND program](#), for the use of its Casia G ground-based solution. This is the second waiver Iris Automation has been granted on behalf of the City of Reno's Fire Department, having obtained [another just last month for autonomous flight with its Casia X](#).

The waiver enables the drone operator to fly without maintaining visual contact. Casia G leverages Iris Automation's detect-and-avoid technology to establish a stationary perimeter of sanitized, monitored airspace, allowing Uncrewed Aerial Vehicles to perform work safely by granting awareness of intruder-piloted aircraft.



Casia G does not require integration onto the aircraft, and its ground-based placement provides greater flexibility in establishing permanent, sanitized air space and in quickly changing locations by simply relocating Casia G.

<https://dronelife.com/2022/04/10/automation-scores-2nd-bvlos-waiver-this-time-with-casia-g-ground-based-detect-and-avoid/>

US Defense Unit awards Skydweller \$14m for development of hydrogen-powered aircraft George Heynes Apr 05, 2022



Skydweller is promoting the use of hydrogen fuel cells and clean energy technologies to not only reduce the carbon footprint of aircraft but additionally to optimize the technology.

The project's primary objective is to develop and integrate key hardware and software that can leverage



UAS and SmallSat Weekly News

the clean technology to increase efficiency and performance.

To date, the areas of focus for the Skydweller includes hydrogen fuel cells, a lightweight hydrogen storage system, advanced battery modules, and advanced mission management software. Once complete, Skydweller will transition into ground and flight testing of new technologies. <https://www.h2-view.com/story/us-defense-innovation-unit-awards-skydweller-14m-to-continue-development-of-hydrogen-powered-aircraft/?msclkid=02edd8acb99311ecacb58330ca6637d6>

The real industry bottleneck is fear of a mid-air collision – ICAO Drone Enable

2022 April 11, 2022 Jenny Beechener



Five speakers agreed on the need for a layered safety case approach to low altitude drone separation at the ICAO Drone Enable 2022 [Webinar](#) on 7 April. The role of vehicle-to-vehicle drone separation in the evolving Uncrewed Traffic Management ecosystem is a key issue, and it remains far from clear how far away a drone has to be to ‘remain well clear’ in the certification process.

“Boeing champions an approach that looks at strategic conflict management through to separation provision, and finally collision avoidance,” said Brendan Williams, Airspace Integration Technical Lead at Boeing Australia. “This makes maximum use of the infrastructure and services available today; taking account of airspace design as well as airspace structure.”

Boeing Australia [tested](#) its Detect And Avoid capability in partnership with Insitu Pacific in 1Q21. The tests demonstrated BVLOS operations above 400ft in non-segregated complex Class G airspace (uncontrolled) using an Insitu-built ScanEagle equipped with a vision-based DAA solution. Detection of another aircraft was relayed immediately to the Unmanned Aircraft System pilot to support decision-making. <https://www.unmannedairspace.info/commentary/the-real-industry-bottleneck-today-is-the-fear-of-mid-air-collision-icao-drone-enable-2022-webinar/>

Volatus announces construction of permanent eVTOL vertiport in Wisconsin

April 8, 2022 Philip Butterworth-Hayes



Volatus Infrastructure, LLC, in partnership with Wittman Regional Airport and Greater Oshkosh Economic Development Corporation, has announced it will build the “first permanent



UAS and SmallSat Weekly News

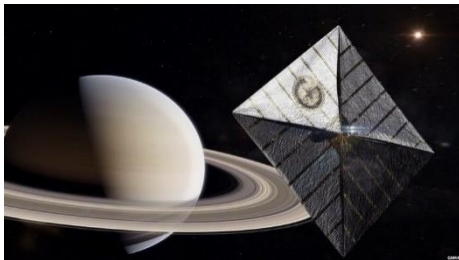
electric vertical take-off and landing (eVTOL) vertiport in the USA” at Wittman Regional Airport.

“Volatus offers three main vertiport designs, a vehicle agnostic charging station, plus an app and maintenance programs. By tailoring to specific needs while incorporating the latest technologies, their work positively impacts clients and the communities they serve,” says a Volatus press release.

The structure will include a terminal with amenities, a landing pad and a vehicle agnostic charging station. The company has a portfolio of three main vertiport designs, a vehicle agnostic charging station, plus an app and maintenance program.

<https://www.unmannedairspace.info/urban-air-mobility/volatus-announces-construction-of-permanent-evtol-vertiport-in-wisconsin/>

French aerospace company to send solar sail ship out to space 10 Apr 2022



The company, called Gama, is going to send what's called a solar sail into orbit in October. It is a type of ship that uses sunlight to power its journey, a bit like how a ship on the sea would use wind to propel them forward.

These nifty contraptions use pressure from sunlight to push them forward. The angle of the sail determines the direction it flies in. The company has raised **€2 million** to fund the project. The sail will be 73 square meters and will travel 550 kilometers above the Earth.

American space organizations, such as NASA, have tested solar sails in the past, **but the first country to successfully sail one on a mission was Japan**. In 2010 it used a solar sail to power a spacecraft all the way to Venus! They're able to travel that far as they don't need an engine to move, so they never run out of fuel. <https://www.bbc.co.uk/newsround/61039830>

Vertical Flight Society Continues Record Growth, Exceeds 170 Corporate Members April 11, 2022 News



The Vertical Flight Society, the world's leading non-profit organization working to advance vertical flight, reports today that it has continued to experience record growth this quarter, propelled largely by the continued expansion of electric aircraft developments around the world.



UAS and SmallSat Weekly News

As of April 1, 2022, a total of 173 companies and other organizations are now members of VFS, a net growth of 23 organizations (15%) from a year ago and a doubling over the past five years. Much of this growth is due to the extensive support efforts and resources that VFS provides to the vertical flight and electric flight community, including technical resources, talent acquisition, educational opportunities, and networking.

In addition, VFS is pleased to announce that Joby Aviation, which was the first electric vertical takeoff and landing (eVTOL) aircraft company to join VFS in April 2016, has increased its membership level from Small Business Member to a Gold Member, the same level as GE Aviation.

Partly due to Joby's early leadership and support, VFS was able to expand its mission over the past several years — from conventional helicopters and advanced rotorcraft to electric flight aircraft. On March 29-31, 2022, VFS held the 1st H2-Aero Symposium & Workshop, **the first conference in North America on hydrogen for aviation**. This watershed event — which covered applications from hydrogen for automotive and space vehicles, to eVTOL, eSTOL and eCTOL aircraft, as well as hydrogen-powered airliners — featured three dozen speakers, with 100 in-person attendees and another 36 online. https://uasweekly.com/2022/04/11/vertical-flight-society-continues-record-growth-exceeds-170-corporate-members/?utm_source=rss&utm_medium=rss&utm_campaign=vertical-flight-society-continues-record-growth-exceeds-170-corporate-members&utm_term=2022-04-11

Aviation innovator Dufour Aerospace establishes footprint in Montreal, Canada

April 7, 2022 News



Dufour Aerospace, an innovative Swiss eVTOL company, is establishing a base of operations in Montreal, Quebec, Canada. The company is developing the next generation of eVTOL aircraft, based on the tilt-wing principle.

“Canada and Montreal have such a historic pedigree in both aviation and software engineering. It is a natural choice for Dufour Aerospace which seeks to collaborate with the local ecosystem to grow its local operations,” said Thomas Pfammatter, CEO of Dufour Aerospace, himself a long-time air ambulance pilot and business executive. “We were initially inspired by the Canadair Dynavert, where Canadian engineers established both the aerodynamic principles of tilt-wing flight and built prototypes with hundreds of hours of flight time,” he added.



UAS and SmallSat Weekly News

Dufour Aerospace will initially hire software engineers focused on developing systems for its innovative Aero2 and Aero3 eVTOL aircraft. Each design features a tilt wing that combines the best of helicopters and airplanes: vertical take-off and landing on even the smallest spots and energy-efficient longer-range flight at high speeds. The Aero2 is designed for **unmanned, remotely piloted** operations. The Aero3 is a manned, 8-seat aircraft designed specifically for air ambulance and HEMS operations. Flight testing of the Aero2 has begun in Zurich, Switzerland. https://uasweekly.com/2022/04/07/aviation-innovator-dufour-aerospace-establishes-footprint-in-montreal-canada/?utm_source=rss&utm_medium=rss&utm_campaign=aviation-innovator-dufour-aerospace-establishes-footprint-in-montreal-canada&utm_term=2022-04-11

EHang receives its largest-ever order for passenger air taxis in Asia [Ishveena Singh](#) - Apr. 11th 2022



EHang, a specialist in passenger-grade drones and urban air mobility, says it has received a pre-order for **100 units** of its EH216 air taxis from an Indonesian aviation company. This is **the largest** pre-order EHang has received so far for its passenger-grade drone taxis in Asia.

The order comes from Prestige Aviation, an aviation service provider that also oversees the sale and acquisition of aerial vehicles and private jet leases. Prestige Aviation previously purchased one unit of EH216 from EHang – and the two parties used it to jointly conduct a flight demonstration for aerial **sightseeing in Indonesia’s Bali** last year.

Bambang Soesatyo, who’s currently serving as the Speaker of Indonesia’s parliament, was present at the contract signing ceremony, stressing that he was pleased to witness reinforcement of collaboration between Prestige and EHang as well as their joint efforts to promote a broader application of UAM solutions to the Indonesian market. “Coming next, we hope to explore more possibilities to facilitate the implementation of UAM in Indonesia, and to seek breakthroughs in infrastructure, airworthiness certification, and other related fields.” <https://dronedj.com/2022/04/11/ehang-air-taxi-preorder-asia/>



UAS and SmallSat Weekly News

12Apr22

Archer and Hexcel Partner: Ramping Up eVTOL Manufacturing Miriam McNabb April 11, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Today [Archer Aviation Inc.](#) announced that it has entered a joint letter of intent with lightweight composite technology leader [Hexcel](#). The letter details a proposed relationship between the two companies that would see Hexcel supply Archer with carbon fiber and resin systems known as prepreg, necessary to the production of composite parts for Archer's production aircraft.

As a leading supplier of carbon fiber, honeycomb, and other composite materials for major programs ranging from aerospace, aviation, space, defense and industrial, Hexcel is the perfect composites partner, providing systems that offer both strength and durability. Hexcel components also cut down on energy consumption and the weight of the aircraft, allowing for higher performance and an increased flight range.

"When selecting a partner, our primary focus was on safety and quality. We were impressed by Hexcel's track record in delivering high-performance prepreg materials for the commercial aerospace industry and their proactive approach to developing cutting-edge materials," said Brett Adcock, Archer's co-founder and co-CEO. <https://dronelife.com/2022/04/11/archer-and-hexcel-partner-ramping-up-evtol-manufacturing/>

PLA gathers hundreds of arms firms, seeks logistics boost from intelligent drones Liu Xuanzun Apr 11, 2022



A TB-001 Twin-Tailed Scorpion armed reconnaissance drone is on display at an unmanned intelligent equipment exhibition organized by PLA Joint Logistics Support Force in early 2022.

The Chinese People's Liberation Army (PLA) Joint Logistics Support Force recently organized an unmanned intelligent equipment inspection event, gathering hundreds of arms companies to display their drone products, in a move analysts said on Monday to find the right equipment that can enhance the Chinese military's logistics support capabilities and boost the PLAs' combat capabilities.



UAS and SmallSat Weekly News

During the evaluation, a type of drone helicopter was given a mission to evacuate a wounded soldier from the frontline to safety in a simulation exercise. Other drones displayed at the event included fixed-wing aircraft, excavators and weapons stations. Having given flight performances at Airshow China 2021, the Twin-Tailed Scorpion armed reconnaissance drone joined the demonstration, carrying what seemed like precision munitions under its wings, but observers said that instead of explosives, they could contain supplies.

The PLA Joint Logistics Support Force has been actively exploring the application of unmanned intelligent technologies in fields like transporting supplies, transfer of the wounded, and emergency search and rescue. <https://www.globaltimes.cn/page/202204/1259059.shtml>

Autonomous MALE UAV Prototype Completed Mike Ball / 08 Apr 2022



[UAVOS](#) has confirmed that it has completed the prototype of its S1-V300 MALE (Medium Altitude Long Endurance) UAS (unmanned aerial system). This advanced aircraft is based on UAVOS' Saker design, which achieved operational capability in 2020, and features several upgrades including a more powerful 260hp heavy fuel engine, increased speed, a **28-hour mission endurance**, and a range of over 4000 km.

The aircraft features UAVOS' proprietary avionics solutions and redundant flight control system. It is equipped with both Line-of-Sight and Beyond-Visual-Line-of-Sight data link systems for over-the-horizon operations. Additionally, the aircraft can be integrated with multiple ISR sensors, including state-of-the-art Electro-optical Infrared cameras and a Synthetic Aperture Radar that offers all-weather, day/night performance for wide-area search capabilities. It will be able to support a variety of overland and maritime Intelligence, Surveillance, and Reconnaissance missions worldwide.

https://www.unmannedsystemstechnology.com/2022/04/autonomous-male-uav-prototype-completed/?utm_source=UST+eBrief&utm_campaign=1a5b8a6ad6-ust-ebrief_2022-apr-12&utm_medium=email&utm_term=0_6fc3c01e8d-1a5b8a6ad6-119747501&mc_cid=1a5b8a6ad6&mc_eid=0d642a9d48



UAS and SmallSat Weekly News

US Switchblade Drones for Ukraine Will Include Tank Killers 5 Apr 2022 Bloomberg News | By Tony Capaccio

WASHINGTON — The Pentagon plans to order and send to Ukraine 10 of the newest model Switchblade drones armed with tank-busting warheads in addition to previously announced deliveries of a less powerful version.



The new Switchblade-600 weapons are part of \$300 million in lethal military assistance announced by the Pentagon Friday night that will be contracted directly from industry instead of drawn from existing stocks.

The White House said on March 16 that it was supplying **100 of the drones** as part of a \$800 million package of weapons and gear taken from U.S. inventories. But those systems are the “series 300” versions: 3.3-pound drones designed to attack personnel and light vehicles. They can fly about 6 miles and loiter over a target roughly 15 minutes.

The new 50-pound model, produced by the Simi Valley, California-based company can fly more than 24 miles and loiter 40 minutes before attacking with an anti-armor warhead. The drone operator uses a tablet-based touchscreen fire-control system with the option to pilot the loitering missile manually. https://www.military.com/daily-news/2022/04/05/us-switchblade-drones-ukraine-will-include-tank-killers.html?ESRC=eb_220406.nl

GoPro strips down Hero10 camera so FPV drone pilots won't have to Ishveena Singh - Apr. 12th 2022



We all love a GoPro on a FPV (first person view) drone, but the DIY process that pilots have been following to make that happen? It's rather complicated. It's not foolproof either. One problem that many would encounter is that of the camera overheating, especially during takeoff and landing.

GoPro's latest offering takes care of all that and more. At 54 grams, the [Hero10 Black Bones](#) is the lightest GoPro ever – providing only the essentials for FPV drone pilots. It can capture



UAS and SmallSat Weekly News

cinematic 5K 4:3 video at 30fps, 4K 4:3 video at 60fps, and 2.7K 4:3 video at a super-slow 120fps.

GoPro founder and CEO Nicholas Woodman calls the new camera an important step in GoPro's strategy to leverage the company's core camera-technology to produce derivative products that address the needs of a specific audience of customers. In Bones' case, it's FPV pilots.

<https://dronedj.com/2022/04/12/gopro-hero10-black-bones-fpv-drone/#more-79248>

Volatus Aerospace Provides Drones to Support Ukraine April 12, 2022 News



Volatus Aerospace Corp. is pleased to announce that it has begun delivery of intelligence, surveillance, and reconnaissance ("ISR") drones to a consortium of organizations that are focused upon three critical areas of support to Ukraine: medical supplies, non-lethal military equipment, and assistance to displaced persons. In addition to the ISR unmanned aircraft,

Volatus is providing anti-drone systems and training.

Under the terms of various supply agreements, Volatus has made initial shipments to humanitarian organizations like Mriya Aid, and Second Front Ukraine Foundation – a registered Canadian not-for-profit corporation working with trusted partners across North America and in Ukraine to deliver goods necessary to protect the lives of Ukrainians in the face of Russian aggression.

To meet the growing need for this equipment, Volatus is prepared to fulfill continuing requirements for its products. Volatus CEO, Glen Lynch, commented: "We are honored and proud to support Second Front, Mriya Aid, and others. This technology provides accurate real-time intelligence while reducing risk to the people who have chosen to serve, and, as recent videos have highlighted, civilians who are at significant risk."

https://uasweekly.com/2022/04/12/volatus-aerospace-provides-drones-to-support-ukraine/?utm_source=rss&utm_medium=rss&utm_campaign=volatus-aerospace-provides-drones-to-support-ukraine&utm_term=2022-04-12



UAS and SmallSat Weekly News

13Apr22

Wisk and Skyports Partner to Define Autonomous AAM Infrastructure Operations April 12, 2022



APRIL 12, 2022 – MOUNTAIN VIEW, CA and LONDON, ENGLAND – Wisk Aero, developer of the first all-electric, self-flying air taxi in the US, and Skyports, designer, developer, and operator of vertiports, are partnering to integrate **autonomous, electric, vertical takeoff and landing (eVTOL)** aircraft operations at vertiports. The partnership marks the **first** collaboration between a vertiport developer-operator and an autonomous eVTOL developer in the U.S.

While AAM services will initially launch with piloted vehicles, Wisk, Skyports, and the broader industry recognize autonomy is the key to unlocking the scalability, accessibility, and affordability needed to realize the full potential and total addressable market of AAM. Wisk and Skyports are defining autonomous eVTOL vertiport operations to ensure that vertiports and other ground-based infrastructure will be capable of supporting autonomous operations.

The partnership is evaluating core areas including physical aircraft considerations (functions, capabilities, requirements, interfaces, and support), passenger accommodation, schedule management, ground operations management, final approach and takeoff management, navigational aids, situational awareness, contingency management, and airspace design. <https://wisk.aero/news/press-release/wisk-skyports-partnership-conops/>

Amentum Provides Unmanned System Research Under \$260M DHS Task Order

Charles Lyons-Burt April 12, 2022



[Amentum](#) has secured a potential five-year, **\$260 million** contract from the Department of Homeland Security to generate a defense strategy for attacks from unmanned systems.

The Department of Defense Information Analysis Center multiple-award contract task order, issued by the DHS' Science and Technology



UAS and SmallSat Weekly News

Directorate, requires Amentum to construct and implement [new technologies and prototypes](#) designed to combat unmanned system threats.

The team at Amentum is expected to evolve and update new capabilities via research and development and test and evaluation practices. Their efforts are intended to modernize the department's own unmanned systems arsenal at a fast pace to embolden security and shield critical infrastructure.

During the undertaking, the company will aim to anticipate and offset adversarial maneuvers from a variety of sources, including air, land, maritime, space and cyber. They will do so through an engineering and development methodology with software tools and an iterative approach. <https://executivegov.com/2022/04/amentum-provides-unmanned-system-research-and-manufacture-under-dhs-task-order/>

14Apr22

First Surveillance Reapers Handed Over to the Netherlands David Donald April 13, 2022



General Atomics Aeronautical Systems Inc. (GA-ASI) has handed over the first three of four MQ-9A Block 5 Reaper remotely piloted aircraft (RPAs) on order for the Royal Netherlands Air Force. Support equipment and two mobile ground control stations were also handed over at the same time. The RPAs and equipment are due to be

transported to Hato on the island of Curaçao later in April to begin surveillance operations with 306 Squadron in the **Netherlands Antilles**.

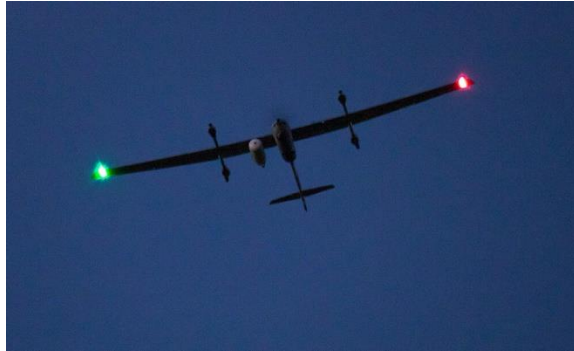
The **\$123.3 million** procurement process, undertaken as a government-to-government Foreign Military Sale, began with U.S. State Department approval in 2015, with a Letter of Acceptance being signed in 2018. In March 2019 [GA-ASI received a contract](#) to build the four Reapers at its Poway, California, plant. The first was officially acquired from GA-ASI in early February, undergoing acceptance tests in California to validate that KLu requirements had been met. Further acceptance tests cleared the remaining RPAs later in the month. Additional trials will be undertaken once the Reapers have reached **Hato**. <https://www.ainonline.com/aviation-news/defense/2022-04-13/first-surveillance-reapers-handed-over-netherlands>



UAS and SmallSat Weekly News

Lockheed Stalker Drone Completes World Record 39-Hour Flight INDER SINGH

BISHT APRIL 12, 2022



A production Stalker VXE was configured with an external, wing-mounted fuel tank for the 39 hours, 17 minutes, and 7 seconds flight — a record in the Group 2 unmanned aerial system category (11 to 55 pounds).

This flight was nearly **five times longer** than the average endurance of a fuel cell-operated Stalker and provided glimpses of the aircraft's future potential for "scaled up" missions.

The baseline Stalker surveillance drone has been in service with the US Special Operations Command since 2006. Its improved version — the Stalker eXtended Endurance — was introduced in 2011, followed by the aircraft's vertical take-off and landing version in 2018, which was designed for operations in austere and rugged environments.

The Stalker has a maximum speed of 58 miles per hour and a cruise speed of 36 miles per hour. A battery-powered Stalker can fly for up to 138 miles while a fuel cell-powered Stalker has a range of **269 miles**. It is a man-portable aircraft with a maximum takeoff weight of 48 pounds and 38.5 pounds for the fuel cell and battery-powered versions, respectively.

<https://www.thedefensepost.com/2022/04/12/lockheed-martin-drone-record-flight/>

Warren County Community College Drone Program is Training an Industry

Workforce Miriam McNabb April 13, 2022



The [Warren County Community College drone program](#) is breaking new ground in many ways. When it comes to employer demand for graduates, says WCCC President Will Austin, "I've never seen anything like it."

Austin is not only the President of the College, but also the UAS Program Director, having gone back to school himself to get a master's degree from Embry Riddle to run the program. Students have access to a state-of-the-art UAS laboratory and an outdoor multi-function "Flight Training Center" with an accident reconstruction training site, professional GCPs for engineering applications, take-off and landing pads for multi-rotor aircraft, launch & recovery areas for fixed-wing aircraft, and NIST/AUVSI TOP pilot training.



UAS and SmallSat Weekly News

“We didn’t do other aviation programs,” says Austin. “Sometimes, people think this is going to be an easy degree: but you must learn aviation, meteorology, the electromagnetic spectrum, radio frequencies, GIS, mapping – and then you get into the safety aspects of flying. This is a hard degree – just finding the professors for these topics is very difficult.”

The degree takes about 10,000 hours to complete: the College provides all the drones and the systems. “Our students can really get their hands on things that many other people only see in magazines,” Austin says. “And the students we are producing are some of our best students, because they make it through,” Austin says. “It’s a lot of work.”

The Warren County Community College drone program offers the training that employers want, and Austin reports that graduates are choosing from multiple offers in industries that range from agriculture to Homeland Security. <https://dronelife.com/2022/04/13/warren-county-community-college-drone-program-is-training-an-industry-workforce-and-employers-are-lining-up-to-hire/>

CYCLOTECH AND YAMATO REVEAL INNOVATIVE CARGO EVTOL CONCEPT JASON

PRITCHARD 13 APRIL 2022



CycloTech and Yamato Holdings have successfully completed a joint feasibility study on applying CycloRotors, a new thrust vectoring propulsion technology, to create a mid-class cargo eVTOL aircraft capable of precision landing in confined areas, with the ability to handle challenging wind conditions.

[They have published a white paper](#) explaining the detailed outcome of a study that incorporated the PUPA701 Pod Unit for Parcel Air-transportation developed by Yamato, and the CycloRotors 360° thrust vectoring aviation propulsion system developed by CycloTech. The compact design and direct control of thrust direction offer a stable transition from hover to forward flight and superior maneuverability.

CycloRotors were used to design an unmanned cargo eVTOL that is stable in windy conditions, with precision landing in confined areas of 5 m diameter, capable of transporting a 45 kg payload over 40 km. A battery-powered, distributed electric propulsion system with six omnidirectional thrust generating CycloRotors ensures stability in crosswinds of up to 18 m/s, in a compact 2.7 m x 2.5 m footprint.



UAS and SmallSat Weekly News

The design is based on extensive calculations, wind tunnel testing, and the **first flights of a technology demonstrator**. All operations can be handled from one side, be it loading and unloading the payload, complete swap of the pod or charging or exchanging batteries.

Last October, after nine months of testing, [CycloTech screened a video of the first free-flight of its technology demonstrator at the DroneX Trade Show & Conference](https://www.cyclotech.com/news/cyclotech-screened-a-video-of-the-first-free-flight-of-its-technology-demonstrator-at-the-drone-x-trade-show-conference) at the ExCeL Exhibition Centre, which included a keynote presentation from CycloTech's CEO, Hans-Georg Kinsky <https://evtolinsights.com/2022/04/cyclotech-and-yamato-reveal-innovative-cargo-evtol-concept-with-cyclorotors-and-complete-feasibility-study/>

Germany funds research on using drones to service offshore wind farms Ishveena Singh - Apr. 14th 2022



The German Federal Ministry for Economic Affairs and Climate Protection is funding a new **three-year research project** on the use of passenger-grade air taxis and cargo drones to complement helicopter and ship deployments when servicing offshore wind farms. The idea is to fly technicians and materials out to sea using drones and reduce

the time and cost it takes to service a wind turbine.

The project is being spearheaded by electric utility company EnBW, wind farms and solar parks developer Energiekontor, and the German government's research center for aeronautics and space DLR. Offshore wind farms play a critical role in ensuring sustainable energy supply in Germany. However, their location far from the coast means long journeys for the maintenance teams.

The engineers working on the project envision using cargo drones to transport tools and materials directly to the top of a 100-meter wind turbine – eliminating the need for cranes. And if service technicians were to travel by air taxis, it would negate the need for logistically complex transfers to the turbines and two-week shifts with overnight stays at sea.

<https://dronedj.com/2022/04/14/germany-drones-offshore-wind-farms/>



UAS and SmallSat Weekly News

15Apr22

DEUTSCHE BAHN: GERMAN TRAIN SYSTEM TO ADD DRONES April 7, 2022 Sally French



The train system is seeking to add drones as a means of monitoring railway infrastructure and maintenance. And in March, it awarded a competitive tender to **Pix4D Germany** to make it happen.

Over the coming years, Pix4D will use its products including PIX4Dcloud, PIX4Dmapper, and PIX4Dmatic for processing and analyzing drone imagery, primarily of any Deutsche Bahn construction projects, as well as for general monitoring and quality assurance of existing infrastructure. DB Netz AG, which is the infrastructure operator of Deutsche Bahn, will manage the contract with Pix4D.

The news is especially significant given the Deutsche Bahn's prominence in the transportation world. Deutsche Bahn is the largest railway operator in Europe with about 34,000 kilometers (over 21,000 miles) of track. That's about two-and-a-half times the diameter of the Earth, and about four times as long as The Great Wall of China. Deutsche Bahn is also **the largest railway company in the world by revenue**. <https://www.thedronegirl.com/2022/04/15/deutsche-bahn-german-drones-pix4d/>

Freefly Alta X on Blue sUAS 2.0 List: Payload Flexibility for Varied Applications

Miriam McNabb April 14, 2022 by DRONELIFE Staff Writer Ian M. Crosby



Today, American drone developer [Freefly Systems Inc.](#) announced its Freefly Systems [Alta X](#) unmanned aerial system (UAS) has been authorized as a trusted drone platform following its successful completion of the U.S. Department of Defense Innovation Unit's (DIU) Blue sUAS 2.0 testing, evaluation, and demonstration programs.

The [DIU issued 11 agreements](#) with non-traditional vendors last October for participation in the Blue sUAS 2.0 pilot program. The goal of the program was to test a new approval process for dual-use technologies while at the same time expanding the range of capabilities available to the Department of Defense. The



UAS and SmallSat Weekly News

expansion will grant the DoD and its federal partners access to a multitude of highly requested new sUAS capabilities with a wide variety of applications that include infrastructure inspection, mapping, and public safety. <https://dronelife.com/2022/04/14/freely-alta-x-on-blue-suas-2-0-list-payload-flexibility-for-varied-applications/>

NASA's Mars helicopter sets new flight records *Joseph Guzman | April 14, 2022*



NASA made history last year after pulling off the first-ever controlled flight of an aircraft on Mars with its Ingenuity helicopter. Now, nearly a year later, the 4-pound helicopter continues to soar past researchers' expectations and break records.

The helicopter designed to explore the Red Planet successfully carried out its **25th flight** Friday and flew faster and farther than ever before.

According to [NASA's Jet Propulsion Laboratory](#), Ingenuity flew more than 2,300 feet at more than 12 mph. Previously, the helicopter only reached speeds of about 11 mph and flew just over 2,000 feet. Ingenuity took flight for 161.3 seconds. The longest the aircraft has stayed in the air was 169.5 seconds in August.

It's an impressive feat for the Martian rotorcraft that was designed to be a technology demonstration expected to only complete five experimental test flights. <https://thehill.com/changing-america/enrichment/3267497-nasas-mars-helicopter-sets-new-flight-records/>