

#### **Contents**

- 2 GA-ASI Partners with Divergent Technologies, Inc.
- 2 UAVaid Brings Drones to Sierra Leone Reforestation Project
- 3 Ameriflight Signs Intent to Purchase Sabrewing Aircraft for 35 VTOL Air Cargo Drones
- 4 Dronamics Secures \$40 Million for Europe's First Middle-Mile Drone Deliveries
- 4 GradeOne Group and UAVOS Showcase Land and Air Capabilities at IDEX 2023
- 5 FlightOps OS Enables Record-Breaking Medical Equipment Drone Delivery in Israel
- 6 NYPA, Skydio receive FAA waiver for BVLOS drone inspections
- 6 Lumenier Light Show Drones: ARORA Now Compatible with Drone Show Software
- 7 EDGE Launches 11 New Breakthrough Autonomous and Unmanned Solutions at IDEX 2023
- 8 Blade Air Mobility Cheers BETA's ALIA-250 eVTOL NYC-area flight
- 8 Last chance to register for youth drone competition UAS4STEM
- 9 Avinor issues industry tender for national UTM system
- 10 Spright secures FAA approval to fly beyond visual line of sight utility inspections
- 10 FIXAR drones start service in Brazil through partnership with Helisul Aviação
- 11 Flying Taxis in Denmark: "Now is the Time to Start Building" says Airport Chairman
- 12 BlackEagle 50H Incorporates Micro Maritime Patrol Radar for Long Range Missions
- 12 VTOL Fixed-Wing Drones for Surveying & GIS Mapping
- 13 Fortem bags \$17.8M funding to meet counter-drone demand
- 14 South Korea to use robot and drone delivery in smart logistics networks for major cities
- 14 HOW MANY FEMALE DRONE PILOTS ARE THERE?
- 15 EHang EH216: First Autonomous Passenger Carrying Flight in Japan
- 16 sUAS News The Business of Drones, Primoco contract
- 16 AMSL Aero's Vertiia stages first Oz-produced eVTOL test flight
- 17 Booz Allen invests in drone monitoring startup Hidden Level
- 18 Military Drone Support for Ukraine: Red Cat CEO Visits NATO Countries
- 18 Terran Orbital Wins \$2.4b Contract to Build 300 LEO Com Satellites
- 19 Legislation introduced to ban drones made by China as national security threats
- 20 Air Speeder Utility Vehicle Maker Mayman Aerospace Scores Investment from UAE



#### 18Feb23

### **GA-ASI Partners with Divergent Technologies, Inc.**



SAN DIEGO – 15 February 2023 – General Atomics Aeronautical Systems, Inc. (GA-ASI), the world's leading manufacturer of Unmanned Aircraft Systems (UAS), radars, electro-optic, and related mission systems, is partnering with Divergent Technologies, Inc. (Divergent) to support its Additive Manufacturing applications development efforts and implement

a full digital manufacturing process for GA-ASI's products. Divergent has developed a data-driven approach to design, fabricate and assemble vehicle structures called the Divergent Adaptive Production System (DAPS). GA-ASI is working with Divergent to apply this capability to manufacturing its line of UAS.

In 2022, GA-ASI began a joint development program with Divergent, which led to a stronger strategic partnership on multiple platforms. GA-ASI's Additive Manufacturing, aircraft integrity, material and design engineering teams are working with Divergent to adapt, apply and qualify its automobile industry-qualified technology to GA-ASI's aircraft production. Divergent has grown within the automobile sector as a Digital Manufacturing process innovator, producing some of the fastest cars on the market with several recent car OEM adoption announcements. <a href="https://www.ga.com/ga-asi-partners-with-divergent-technologies-inc">https://www.ga.com/ga-asi-partners-with-divergent-technologies-inc</a>

**UAVaid Brings Drones to Sierra Leone Reforestation Project** Miriam McNabb February 16, 2023 by DRONELIFE Staff Writer Ian M. Crosby



A Sierra Leone-based pilot project is set to utilize drone-based remote sensing and data management technologies for the verification and monitoring of reforestation programs.

Sierra Leone has lost over 30% of its tree cover since 2000 and has little in ways of funds with which to create new forests. At COP26, the Government of Sierra Leone committed to planting 25 million trees by 2030 over 960,000 HA.

In collaboration with the Government of Sierra Leo ne, not-for-profit organization <u>Crown</u>

Agents and drone specialist <u>UAVaid</u> are partnering with <u>UK Aid's Frontier Technologies</u> program



to examine potential use cases for technology that will inspire confidence from investors in the community-based forest carbon market.

The pilot project will take place in north-eastern Sierra Leone, where the team has partnered with local conservation and community development organization <a href="Tacugama Chimpanzee">Tacugama Chimpanzee</a>
<a href="Sanctuary">Sanctuary</a> (TCS). The project will utilize new programmatic and technological approaches to support sustainable reforestation, put local communities in charge of the replanted forests, and leverage advanced drone technology for monitoring, reporting and verification. Each planted tree will be geo-tagged and monitored by long range drones, resulting in a remotely accessible verification mechanism. <a href="https://dronelife.com/2023/02/16/uavaid-brings-drones-to-sierra-leone-reforestation-project/">https://dronelife.com/2023/02/16/uavaid-brings-drones-to-sierra-leone-reforestation-project/</a>

## Ameriflight Signs Intent to Purchase Sabrewing Aircraft for 35 VTOL Air Cargo Drones 16 February 2023 Press



Ameriflight, the nation's largest Part 135 Cargo airline, announces a signed letter of intent to purchase 35 VTOL air cargo drones from <u>Sabrewing Aircraft Company</u>, Inc., a U.S. corporation designing and producing a new generation of regional cargo UAV that offers high-efficiency, all-weather operation with vertical landing and takeoff (VTOL)

capabilities. The agreement is for the Rhaegal-A aircraft, also known as "Alpha", the world's best-in-class, highest fuel and maintenance efficiency cargo UAV on the market. Ameriflight expects to take delivery following type certification of the aircraft.

The Sabrewing partnership and Rhaegal-A purchase will enable Ameriflight to enter new business opportunities in distribution center logistics. Using the VTOL capabilities to carry over a ton of cargo to off-airport alternative landing zones, the new cargo aircraft will allow Ameriflight to aid customers in developing a faster and more efficient warehouse distribution network.

Sabrewing's Rhaegal-A aircraft achieved its first hover flight in September 2022 while lifting a record-setting payload of 829 pounds. The company is in the process of initiating the aircraft's production line, with first deliveries expected to take place in the first quarter of 2024. <a href="https://www.suasnews.com/2023/02/ameriflight-signs-intent-to-purchase-agreement-with-sabrewing-aircraft-for-35-vtol-air-cargo-drones/">https://www.suasnews.com/2023/02/ameriflight-signs-intent-to-purchase-agreement-with-sabrewing-aircraft-for-35-vtol-air-cargo-drones/</a>



## Dronamics Secures \$40 Million for Europe's First Middle-Mile Drone Deliveries February 17, 2023 News



Dronamics, the world's first cargo drone airline with a license to operate in Europe, has announced a significant milestone in its growth journey with the successful raising of \$40 million in pre-Series A funding. This funding round was led by several venture capital funds and angel investors from 12 countries, including Founders Factory, Speedinvest,

Eleven Capital, and the Strategic Development Fund (SDF), the investment arm of the Tawazun Council in Abu Dhabi, United Arab Emirates.

Dronamics' strategic partnership with the Strategic Development Fund (SDF) will support the creation of a UAE-based joint venture that will expand Dronamics' capacity and help establish Dronamics' operations in the UAE as one of the main hubs for the Middle East and North Africa. This joint venture will have additional significant investment from SDF through the establishment of a manufacturing and operations JV.

The \$40 million is in addition to the \$2.7 million grant Dronamics received from the European Commission under the selective deep-tech European Innovation Council (EIC) Accelerator program, and the EIC's commitment to support Dronamics' Series A round with another \$13.45 million in equity investment. <a href="https://uasweekly.com/2023/02/17/commercial-drones%utm\_source=rss&utm\_medium=rss&utm\_campaign=commercial-drones&utm\_term=2023-02-17">https://uasweekly.com/2023/02/17/commercial-drones&utm\_term=2023-02-17</a>

## **GradeOne Group and UAVOS Showcase Land and Air Capabilities at IDEX 2023**February 15, 2023 News



UAVOS Inc. and MP3 International, a member of GradeOne Group, will be exhibiting a wide range of their security technologies for unmanned land and air platforms at the upcoming International Defence Exhibition and Conference (IDEX) 2023. The exhibition is scheduled February 20-24, 2023,

at the Abu Dhabi National Exhibition Centre.

The companies will showcase their family of uncrewed jet-powered aerial targets, Arrow 2, and an improved version of Arrow 3, as well as an anti-drone laser system. The Arrow 3 is an advanced target drone with a length of 3.3 m and a wingspan of 3.4 m. Capable of carrying up



to 50 kg of load, the drone can fly at a maximum altitude of 12,000 m and operate up to 530 km. It is powered by a jet engine, allowing it to reach a maximum airspeed of 520 km per hour, and is launched by catapult. It also features UAVOS' advanced autopilot system, the ability to operate in GNSS jamming, and resistance to electronic warfare.

The Arrow 3 drone is suitable for simulating the threat of various manned and unmanned systems, including fighter jets, UAVs, and cruise missiles. It can operate autonomously and can be recovered using a parachute. <a href="https://uasweekly.com/2023/02/15/uav-technology-security-solutions-idex-2023/?utm\_source=rss&utm\_medium=rss&utm\_campaign=uav-technology-security-solutions-idex-2023&utm\_term=2023-02-17">https://uasweekly.com/2023/02/15/uav-technology-security-solutions-idex-2023&utm\_term=2023-02-17</a>

# FlightOps OS Enables Record-Breaking Medical Equipment Drone Delivery in Israel February 15, 2023 News



FlightOps, a multi-drone operating system, has successfully completed Israel's longest autonomous medical equipment delivery using a drone. The autonomous drone, controlled by FlightOps' software, carried blood units over approximately 15.5 miles (25 km) beyond visual line of sight (BVLOS), marking a new milestone in the unmanned aerial

vehicle (UAV) industry.

This achievement was made through a partnership between the Galilee Medical Center and the Israeli Ministry of Health's Medical Centers Division. The FlightOps drone operating system was utilized by DownWind, one of Israel's largest commercial drone operating companies.

The drone was able to transport blood units from the Rambam Medical Center Haifa to the heliport of the Galilee Medical Center, which is the longest distance any medical equipment has been transported by a UAV in Israel. The successful mission demonstrates how drone technology can be leveraged to transport medical supplies over long distances, saving time and potentially saving lives. <a href="https://uasweekly.com/2023/02/15/flightops-drone-operating-system-medical-equipment-delivery-autonomous-drone-operating-system-medical-equipment-delivery-autonomous-drone-operating-system-medical-equipment-delivery-autonomous-drone-operating-system-operat

<u>bvlos/?utm\_source=rss&utm\_medium=rss&utm\_campaign=flightops-drone-operating-system-medical-equipment-delivery-autonomous-drone-bvlos&utm\_term=2023-02-17</u>



### NYPA, Skydio receive FAA waiver for BVLOS drone inspections Bruce Crumley - Feb. 17th 2023



The New York Power Authority (NYPA) has taken another step in its increasing use of <u>drones as tools in inspecting</u> and managing its vast infrastructure by obtaining a Federal Aviation Administration (FAA) waver for <u>beyond visual line of sight</u> flights (BVLOS) at its Blenheim-Gilboa Pumped Storage

Power Project, in partnership with **Skydio**.

The NYPA said Skydio helped guide its request through the FAA's evaluation process, which ultimately granted the utility a waiver to operate BVLOS drone flights at the Blenheim-Gilboa plant, providing the craft remain within 50 feet above ground level or within 50 feet of structures. The facility is in Schoharie County – north of New York City and west of Albany – and will use the UAVs for asset and vegetative management inspections.

Last November the utility announced it had begun <u>integrating artificial intelligence systems</u> to automate and significantly speed up analysis of data captured during aerial inspections. That combination allows the NYPA to detect weak points in transmission structures requiring repair and take preventive action to prevent them from leading to costly outages.

Demonstration of safe operation in the application for the waiver was conducted at the New York UAS test site. The NYPA and Skydio designated the Blenheim-Gilboa plant for its <u>FAA BVLOS</u> request due to the relatively sparse population in that area. Once such <u>operations</u> <u>become routine</u> there, the NYPA hopes to gain authorization to extend them throughout its network – the largest state public power structure in the nation.

https://dronedj.com/2023/02/17/nypa-skydio-receive-faa-waiver-for-bvlos-drone-inspections/#more-91027

### 20Feb23

### Lumenier Light Show Drones: ARORA Now Compatible with Drone Show

**Software** Miriam McNabb February 17, 2023 by DRONELIFE Staff Writer Ian M. Crosby



<u>SPH Engineering</u> and <u>Lumenier</u> have announced a new partnership offering advanced drone show packages that feature <u>Drone Show</u>
<u>Software</u> and Lumenier ARORA light show drones.



Since the start of the year, professional teams from both companies have been collaborating in Florida to carry out a series of tests with Lumenier's ARORA Light Show Drones, equipped with SPH Engineering's Drone Show Software technology. The drones performed light shows boasting record-breaking show times and breathtaking light strobing effects.

Manufactured at Lumenier's Sarasota, Florida facility, the ARORA Light Show Drone offers unrivaled colors, special effects capabilities, and heightened endurance with 25-minute show times. With 10 years of experience providing the drone industry's best motors, frames, antennas, and drones, Lumenier is expanding its offerings with the next revolution in the rapidly growing drone show industry. <a href="https://dronelife.com/2023/02/17/lumenier-light-show-drones-arora-now-compatible-with-drone-show-software/">https://dronelife.com/2023/02/17/lumenier-light-show-drones-arora-now-compatible-with-drone-show-software/</a>

## **EDGE Launches 11 New Breakthrough Autonomous and Unmanned Solutions at IDEX 2023** February 20, 2023 News



**AIRTRUCK** 

EDGE today unveiled 11 new cutting-edge unmanned and autonomous solutions with enhanced capabilities for application across air, land, and maritime domains on the opening day of the International Defence Exhibition and

Conference (IDEX 2023). The new breakthrough products and systems cover a wide range of missions, including tactical intelligence, surveillance, and reconnaissance, logistics support, and combat operations.

JENIAH is an unmanned combat aerial vehicle (UCAV) with a substantial payload, extended range, and capable of operating at high speed. Displayed alongside the UCAV is its Ground Control Station which is designed to monitor and command the system.

With an even higher payload of 500kg and a maximum range of 360km at a cruising speed of 120 km/h, AIRTRUCK is designed for strategic logistics support such as supplying troops in remote locations, medical evacuation, and reconnaissance.

Another addition to the QX range, QX6-50 is developed for logistics for military and civilian applications. Capable of carrying a 50kg payload for up to 200km, the rotary-wing unmanned aerial vehicle can operate autonomously and is highly modular with other QX variants for ease of maintenance. <a href="https://uasweekly.com/2023/02/20/edge-launches-11-new-breakthrough-autonomous-and-unmanned-solutions-at-idex-">https://uasweekly.com/2023/02/20/edge-launches-11-new-breakthrough-autonomous-and-unmanned-solutions-at-idex-</a>



<u>2023/?utm\_source=rss&utm\_medium=rss&utm\_campaign=edge-launches-11-new-breakthrough-autonomous-and-unmanned-solutions-at-idex-2023&utm\_term=2023-02-20</u>

## Blade Air Mobility Cheers BETA's ALIA-250 eVTOL NYC-area flight Bruce Crumley - Feb. 20th 2023



Aviation services company <u>Blade Air Mobility</u> has teamed up with next generation sustainable ALIA-250 aircraft developer BETA Technologies to undertake the first test flight of an <u>electric takeoff and landing</u> (eVTOL) plane in the greater NYC area.

The trial involved BETA's ALIA-250 eVTOL craft flying

above the Westchester County Airport in White Plains, accompanied by a helicopter from <u>Blade's fleet</u> of charter aircraft. For its second pass over the facility, the ALIA-250 flew the loop solo as a means of giving people on the ground an idea of just how much quieter the battery-powered craft is compared to choppers – about one-tenth the noise, according to BETA.

That reduced racket, in addition to zero-carbon emissions of eVTOL craft, is a major reason why Blade has already announced its intention to buy up to 20 of BETA's first passenger-configured ALIA-250 planes when they obtain Federal Aviation Administration (FAA) certification.

Given the technological leap next generation aircraft represent, as well as the operational transformation that <a href="mailto:embracing eVTOLs">embracing eVTOLs</a> will involve for Blade, the flight of BETA's ALIA-250 in the NYC area was considered a major milestone on its own, but also in integrating the craft into the region's airspace. <a href="https://dronedj.com/2023/02/20/blade-air-mobility-cheers-betas-alia-250-evtol-nyc-area-flight/">https://dronedj.com/2023/02/20/blade-air-mobility-cheers-betas-alia-250-evtol-nyc-area-flight/</a>

### Last chance to register for youth drone competition UAS4STEM Ishveena Singh - Feb. 20th 2023



UAS4STEM is an annual educational youth drone competition organized by the Academy of Model Aeronautics (AMA), the largest association of model aircraft and drone hobbyists in the US.

The competition's project-based learning approach provides participants ages 11-19 with a unique opportunity to simultaneously learn technical



skills in drones and develop professional skills such as teamwork, communication, public speaking, time management, and troubleshooting.

For the 2023 season, teams composed of 4 to 10 students and an adult mentor will be tasked with <u>designing and building their own drone</u> to support missions such as waypoint flights and simulated missing person searches.

Teams that advance forward are expected to use their drones to locate equipment such as marshmallows, medical kits, and water bottles. Once found, the drone must pick up and deliver the materials to object-specific target locations.

Drone manufacturer Skydio is sponsoring the UAS4STEM competition and ensuring that students get bonus points for autonomy. The company explains in a <u>blog post</u> that the teams that qualify at the regional level will advance to the national finals held at EAA Airventure in Oshkosh, Wisconsin, at the end of July. Registration for this year is open till March 1, 2023. To start the process, you will need to fill out a brief form and pay the registration fee. More details here. https://dronedj.com/2023/02/20/youth-drone-competition-uas4stem-2023/

**Avinor issues industry tender for national UTM system** February 17, 2023 Philip Butterworth-Hayes UAS traffic management news, UAS traffic management tenders



Norway's air navigation service provider Avinor has issued a request for information (RFI) for uncrewed air system traffic management (UTM) system and service providers to express their interest in providing Avinor with a national UTM system.

"The purpose of this RFI is to inform the market of Avinor's forthcoming need of a new UTM system, gather relevant information to use in the possible upcoming procurement procedure, to give potential Suppliers an indication of what kind of requirements to expect in the possible upcoming procurement procedure, and assess possibilities for a partnership with the Supplier of a UTM system," according to the tender documents. Deadline for responses is 17 March 2023. According to the tender document:

"It is estimated that around 500,000 drones are operating in Norway today. Approximately 2,000 companies are working actively with drones or drone technology. Today, Avinor has an operational UTM system at 17 Norwegian airports. The next phase is to implement a new nationwide UTM system, providing services in both controlled and uncontrolled airspace, as well as inside and outside of U-space airspace. These services should be provided to drone



operators, air traffic service providers, government agencies and other relevant stakeholders such as airspace managers. <a href="https://www.unmannedairspace.info/news-first/avinor-issues-industry-tender-for-national-utm-system/">https://www.unmannedairspace.info/news-first/avinor-issues-industry-tender-for-national-utm-system/</a>

## Spright secures FAA approval to fly beyond visual line of sight utility inspections February 17, 2023 Jenny Beechener UAS traffic management news



The Federal Aviation Administration (FAA) has awarded drone operator Spright a nationwide, non-geospecific Certificate of Waiver (CoW) for Beyond Visual Line of Sight (BVLOS) drone operations. The CoW allows small Unmanned Aircraft Systems (sUAS) to travel up to four nautical miles for critical utility infrastructure surveys.

As part of a broader drone program, BVLOS operations enable electric utility companies to increase the efficiency and effectiveness of long-

linear inspection and vegetation management activities. BVLOS operations also allow companies to perform more frequent and demand-responsive inspections, leading to a maintenance model that better predicts and helps to decrease the risk of outages and interruptions.

By issuing this waiver, the FAA recognizes that Spright has achieved all necessary benchmarks to perform BVLOS flights in a safe and compliant manner.

https://www.unmannedairspace.info/latest-news-and-information/spright-secures-faa-approval-to-fly-beyond-visual-line-of-sight-non-geospecific-utility-inspections/

### 21Feb23

## FIXAR drones start service in Brazil through partnership with Helisul Aviação Bruce Crumley - Feb. 16th 2023



Innovative European enterprise drone company <u>FIXAR</u> is continuing its <u>global business expansion</u> with an entry into Brazil's <u>robust beyond visual line of sight</u> (BVLOS) services market, partnering with local aviation company Helisul Aviação.

Latvia-based FIXAR said the link-up will allow it to serve business clients in <u>Brazil</u> with Helisul overseeing the import, sales, and operation of its 007 drones. That hybrid <u>fixed-wing</u> <u>craft's</u> capacities for extended missions are expected to be a valuable asset to a broad range of



Brazilian companies <u>whose BVLOS</u> surveying, remote sensing, and surveillance missions often cover large expanses of terrain.

FIXAR says the 007 is capable of 60 kilometers of flight carrying a 2 kg payload up to an hour at speeds of 20 m/s. That velocity, it says, is about 30% faster than competing craft, enabling not only quicker data collection results, but coverage of over wider areas than rivals.

The FIXAR 007 features a <u>unique</u>, <u>eye-catching design</u> that positions its four rotors so they don't require pivoting to enable transition from vertical takeoff to forward flight as other <u>fixed-wing craft</u> do. That allows for fast and easy takeoffs and landings on any terrain – without parachutes, catapults, or other accessories that most fixed-wing craft need – and prolonged mission distances with greater speed and efficiency that the fixed-wing design affords. <a href="https://dronedj.com/2023/02/16/fixar-enterprise-drones-start-service-in-brazil-through-partnership-with-helisul-aviacao/">https://dronedj.com/2023/02/16/fixar-enterprise-drones-start-service-in-brazil-through-partnership-with-helisul-aviacao/</a>

# Flying Taxis in Denmark: "Now is the Time to Start Building" Says Airport Chairman Miriam McNabb February 20, 2023 by DRONELIFE Staff Writer Ian M. Crosby

A new partnership has been formed between <u>HCA Airport</u> in Odense and <u>Copenhagen Helicopter</u> to establish infrastructure for electric vertical take-off and landing aircraft (eVTOL) to transport passengers between Denmark's largest cities.

The goal of the partnership is to provide Denmark with a eVTOL prototype by this summer, and afterwards develop one or more vertiports in Odense.



"I foresee that in a few years' time you can take the light rail to Odense Station and from there take a flying taxi to Copenhagen or other Danish cities. Now is the time to start building a brand new infrastructure based initially on manned flying taxis that fly on green power and contribute to the government's goal of achieving

100% green domestic transport by 2030," said HCA Airport Chairman Kim Kenlev.

The partnership aims to bring foreign AAM operators to HCA Airport, either through testing and demonstration activities or longer-term service and maintenance. HCA Airport is already home to the UAS Denmark Test Center, an internationally recognized drone test site. <a href="https://dronelife.com/2023/02/20/flying-taxis-in-denmark-now-is-the-time-to-start-building-says-airport-chairman/">https://dronelife.com/2023/02/20/flying-taxis-in-denmark-now-is-the-time-to-start-building-says-airport-chairman/</a>



## BlackEagle 50H Incorporates Micro Maritime Patrol Radar for Long Range Missions Phoebe Grinter / 21 Feb 2023



At the IDEX 2023 event in Abu Dhabi, <u>Steadicopter</u> and BIRD Aerosystems are unveiling the BlackEagle 50H (BE50H) – a hybrid unmanned helicopter, featuring a miniature airborne radar with advanced proprietary technology, for use in maritime intelligence missions.

Advanced capabilities for long endurance of up to five hours, together with BIRD Aerosystems' Micro Maritime Patrol Radar ( $\mu$ MPR) capabilities for the detection and tracking of maritime vessels, enable the BE50H to carry out accurate mapping of all vessels within a radius of 200 km within a few hours, in harsh environmental conditions, day or night.

Coupled with the µMPR, the BE50H provides a combination of a small tactical rotary UAS (with a near-to-zero operational, maintenance and logistic footprint), capable of wide-area persistent surveillance and coverage for long durations with all the advantages of the rotary UAS, such as persistent hovering, which enable additional concepts of operations for many mission applications. <a href="https://www.unmannedsystemstechnology.com/2023/02/blackeagle-50h-incorporates-micro-maritime-patrol-radar-for-long-range-">https://www.unmannedsystemstechnology.com/2023/02/blackeagle-50h-incorporates-micro-maritime-patrol-radar-for-long-range-</a>

missions/?utm\_source=UST+eBrief&utm\_campaign=edc700e054-ust-ebrief\_2023-feb-21&utm\_medium=email&utm\_term=0\_6fc3c01e8d-edc700e054-111778317&mc\_cid=edc700e054&mc\_eid=acabe18a61

### VTOL Fixed-Wing Drones for Surveying & GIS Mapping Mike Ball / 20 Feb 2023



Atmos is the creator of the innovative Marlyn Cobalt VTOL fixed-wing drone, designed to push the boundaries of commercial survey and GIS mapping UAVs. UST is delighted to welcome Atmos on board as a supplier partner.

The Marlyn Cobalt VTOL UAS features a state-of-the-

art hybrid design that combines the advantages of both multirotor and fixed-wing mapping drone platforms. Operations can be launched from a minimal 2×2 metre footprint, switching to airplane-like forward flight for maximum efficiency and coverage.



Thanks to the integrated Topcon PPK system, surveyors can achieve accuracy of down to 1cm with Marlyn Cobalt, without the need for placing ground control points or for a constant datalink between the aircraft and base station.

Marlyn Cobalt can survive tougher wind conditions than any other VTOL survey drone. With the ability to operate in wind speeds of up to 45km/h at ground level and 55km/h at cruising altitudes, you can fly on days that would ordinarily be a "no-go" for any other platform, adding up to significant productivity boosts. <a href="https://www.unmannedsystemstechnology.com/2023/02/vtol-fixed-wing-drones-for-surveying-gis-mapping/?utm\_source=UST+eBrief&utm\_campaign=edc700e054-ust-ebrief\_2023-feb-21&utm\_medium=email&utm\_term=0\_6fc3c01e8d-edc700e054-111778317&mc\_cid=edc700e054&mc\_eid=acabe18a61</a>

### Fortem bags \$17.8M funding to meet counter-drone demand Ishveena Singh - Feb. 21st 2023



Key industry investors in the round include Lockheed Martin Ventures, Hanwha Aerospace, and AIM13 | Crumpton Venture Partners. Existing investors DCVC and Signia Venture Partners have also contributed funds.

Fortem has been dominating news circles lately for its <u>support in Ukraine</u>, fighting suicide drones like the Shahed-136 and protecting venues of international importance, such as the <u>FIFA World Cup</u> games in Qatar. The company says it is seeing a continued uptick in market growth and demand for its unique airspace awareness, security, and defense technology, which includes an interceptor drone called DroneHunter. (*Pictured above*.)

Talking about the new funding round, Fortem CEO Jon Gruen is quick to point out that investments from industry-leading companies such as Lockheed Martin Ventures and Hanwha Aerospace represents a significant endorsement of the growth and opportunity the company is seeing in the counter-drone and Advanced Air Mobility marketplace. <a href="https://dronedj.com/2023/02/21/fortem-counter-drone-funding/">https://dronedj.com/2023/02/21/fortem-counter-drone-funding/</a>



# South Korea to use robot and drone delivery in smart logistics networks for major cities Bruce Crumley - Feb. 21st 2023



The government of <u>South Korea</u> is launching a project to create a smart logistics infrastructure network designed to slash the time between customer orders and their <u>delivery by drones</u> and robotic vehicles to <u>under an hour</u>.

The announcement by <u>South Korea's</u> Ministry of Land, Infrastructure and Transport was reported by the *Korea Herald*, which <u>said</u> the plan aims to enable <u>rapid delivery of products</u> in major cities by robots in 2026 and by drones the following year. The press release it quotes – which at publication of this article was still not available on the ministry's English site – describes the creation of a fast logistics network based around micro-fulfillment centers (MFC) in key locations.

Those facilities are to be equipped with artificial intelligence applications that will use data flows to predict the ebbs and flows of order demands, proactively organize quick dispatch of goods, and manage inventories automatically.

Central to the plan is a private-public consultative body provisionally called The Smart Logistics Development Council. It will bring together companies from related activities, including logistics, transport systems, information technologies, and retail. Insights and expertise offered by participants are expected to shape the creation of a network of MFCs equipped with AI and big data resources to permit virtually immediate processing and transport of orders by driverless vehicles or drones in South Korea's cities. https://dronedj.com/2023/02/21/south-korea-to-use-robot-and-drone-delivery-in-smart-logistics-networks-for-major-cities/#more-91076

#### 22Feb23

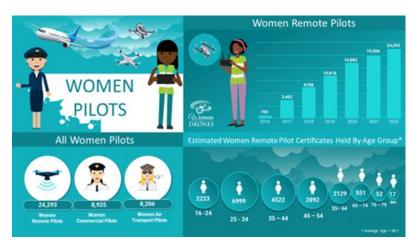
#### HOW MANY FEMALE DRONE PILOTS ARE THERE? February 10, 2023 Sally French

The Federal Aviation Administration in January updated its U.S. Civil Airmen Statistics report, which is an annual study published that contains detailed airmen statistics not published in other FAA reports. And the data provides some pretty interesting insight about the number of female drone pilots in the U.S. (and the number of female commercial and air transport pilots, too).



And the data shows that there are 24,293 female drone pilots in the U.S. That means women make up 7.9% of all certified remote pilots.

The statistics were analyzed by Women and Drones, which is an online drone community and support network that also runs the annual <u>Women in Emerging Aviation Technologies Awards</u>, a related <u>Hall of Fame</u>, an <u>annual in-person summit</u> and its <u>own drone diversity study</u>, among other projects.



Graphic courtesy of Women and Drones.

Women and Drones did all sorts of number crunching to better dig into what the female drone pilot area looks like, and where within the U.S. most women drone pilots are located. They broke out number of female drone pilots by state, and it turns

out that California (which is where I live!) is home to the most female drone pilots of any U.S. state. Here are the three states with the most female drone pilots, according to the Women and Drones analysis of FAA data: California: 2,508, Florida: 2,060, Texas: 1,629. https://www.thedronegirl.com/2023/02/22/how-many-female-drone-pilots-are-there/

## EHang EH216: First Autonomous Passenger Carrying Flight in Japan Miriam McNabb February 21, 2023 by DRONELIFE Staff Writer Ian M. Crosby



Notably, this is the nation's first passenger-carrying flight conducted by an autonomous eVTOL aircraft. With the approval of Japan's Ministry of Land, Infrastructure, Transport and Tourism, the EH216 flew with two passengers and no pilot along the coastline of Tanoura Beach in the city of Oita.

https://dronelife.com/2023/02/21/ehang-eh216-

first-autonomous-passenger-carrying-flight-in-japan/



### sUAS News - The Business of Drones, Primoco contract February 22, 2023



<u>Primoco UAV SE</u> has announced a new contract for the supply of unmanned aerial vehicles. The Czech manufacturer will deliver machines with an aggregate value of <u>EUR 2.35 million</u> to a European customer.

Primoco UAV SE's new order follows a successful 2022, in which the company sold a total of 22 UAVs. Twelve of them

were delivered to customers last year, and the remaining ten will be completed and handed over in the first half of 2023. "Our goal for 2023 is to deliver a total of one billion crowns worth of unmanned aircraft and services to our customers. Due to the ongoing negotiations, I expect that the first contract concluded this year will be followed by the sale of 9 more machines in Asia and Africa in the first half of the year," said Ladislav Semetkovský, founder and CEO of Primoco UAV SE.

The shares of Primoco UAV SE are traded on the PX START market of the Prague Stock Exchange. The company's securities were among the best-performing shares on the Prague stock market last year with an appreciation of 52%.

 $\frac{https://www.legendaryleadersininnovation.com/feeds/410/results/ffaa806094ce013b4cc60242ac1100}{02}$ 

## AMSL Aero's Vertiia stages first Oz-produced eVTOL test flight Bruce Crumley - Feb. 22nd 2023



Score one for Oz. Sydney-based developer of the Vertiia <u>electric vertical takeoff and landing</u> aircraft, AMSL Aero, says it has become the first <u>Australian</u> company to test-fly a next-generation plane <u>entirely designed and produced in the country</u>.

Perhaps even more remarkable than <u>AMSL Aero's</u> national <u>eVTOL</u> precedent, however, are the impressive capabilities it says the Vertiia craft possesses. Many <u>similar craft</u> can match its four-passengers-plus-pilot capacities, cruising speeds of 300 km/h, and 250 km flight range when Vertiia operates exclusively on batteries. But when fitted as planned with <u>hydrogen cells</u>, it can fly up to 1,000 km – three times the distance of other planes in its category.



AMSL Aero revealed this week that it had successfully completed the maiden hover flight of its Vertiia <a href="eVTOL">eVTOL</a> in a tethered operation in the central-west region of its New South Wales home state. It said the trial was carried out according to rules stipulated by Australia's <a href="eivit Aviation">Civil Aviation</a> <a href="Eastern Authority">Safety Authority</a> (CASA), with which the company will initiate the certification procedures in coming months.

The Vertiia uses a so-called "boxed-wing" design that AMSL Aero borrowed for its eVTOL from Aussie aeronautical pioneer Lawrence Hargrave, who invented the box kite 13 decades ago during his experiments. <a href="https://dronedj.com/guides/casa/">https://dronedj.com/guides/casa/</a>

## **Booz Allen invests in drone monitoring startup Hidden Level** Ishveena Singh - Feb. 22nd 2023



Booz Allen Hamilton, a global consulting firm and digital integrator for the US Department of Defense, has made a strategic investment in Hidden Level, a New York-based drone monitoring startup. The investment comes through the company's corporate venture capital arm Booz Allen

Ventures.

<u>Hidden Level</u> provides airspace monitoring services over cities to ensure safe and secure airspace for airports, large-scale events (like fairs and football games), and other critical infrastructure.

Its drone detection solution utilizes a local network of passive RF drone detection sensors, much like a cellular network, that is owned, operated, and maintained by Hidden Level. These sensors — installed on buildings, rooftops, and cell towers — provide real-time location data on a drone, regardless of whether it is broadcasting accurate Remote ID information or not.

While the amount it has raised from Booz Allen is not disclosed, Hidden Level has previously raised nearly \$21 million in venture funding. Investors in the company include Lobby Capital, Lockheed Martin, Alsop Louie Partners, Pipeline Capital, Quest Venture Partners, and Lauder Partners. <a href="https://dronedj.com/2023/02/22/booz-allen-hidden-level-drone/">https://dronedj.com/2023/02/22/booz-allen-hidden-level-drone/</a>



#### 23Feb23

## Military Drone Support for Ukraine: Red Cat CEO Visits NATO Countries Miriam McNabb February 22, 2023 by DRONELIFE Staff Writer Ian M. Crosby

Red Cat CEO Jeff Thompson during pilot training for new Teal 2 military drone.

Red Cat Holdings [NASDAQ:RCAT] is one of the holdings in the AdvisorShares Drone Technology ETF [NYSE ARCA:UAV], the only ETF dedicated to the drone economy. For complete list of holdings <u>click here</u>.

Jeff Thompson, CEO of military technology company Red Cat Holdings, will be part of a delegation visiting NATO countries this week to discuss military drone support for Ukrainian forces.



#### Red Cat's Teal 2

Red Cat subsidiary <u>Teal Drones</u>' new military-grade drone, the Teal 2, will be showcased by Thompson to NATO leaders. Anticipated to launch in Q2 2023 and currently available to first-adopter customers, the Teal 2 is designed to be the world-leading drone

solution for nighttime operations.

According to The Wall Street Journal, Ukrainian forces "lack enough drones to spot targets and direct artillery – especially more-expensive models with night-vision cameras that would allow them to work in the dark, when the Russians seek to creep forward." <a href="https://dronelife.com/2023/02/22/military-drone-support-for-ukraine-red-cat-ceo-visits-nato-countries/">https://dronelife.com/2023/02/22/military-drone-support-for-ukraine-red-cat-ceo-visits-nato-countries/</a>

## Terran Orbital Wins \$2.4b Contract to Build 300 LEO Com Satellites Garrett Reim February 22, 2023



Terran Orbital has won a \$2.4 billion contract to build 300 small satellites for Rivada Space Networks, a Munich-based company developing a laser-linked communications network in low Earth orbit.

The announcement is a major win for Terran Orbital and sent the company's stock surging, up about 85% from the day earlier to around

\$3.14 a share.



Tyvak Nano-Satellite Systems, a subsidiary of Terran Orbital, will design, build, and deploy the 300 small satellites, including 12 spares. Each satellite will weigh about 1,100 lb. and would be placed in near-polar low Earth orbits. Tyvak will also develop portions of the ground segment for the satellite network.

Rivada Space plans to start deploying its constellation as soon as 2025, depending on regulatory approval. It aims for "global coverage" by 2026. By mid-2028, the German company wants to have full deployment of 600 satellites. <a href="https://aviationweek.com/aerospace/commercial-space/terran-orbital-wins-24b-contract-build-300-leo-com-satellites">https://aviationweek.com/aerospace/commercial-space/terran-orbital-wins-24b-contract-build-300-leo-com-satellites</a>

## Legislation introduced to ban drones made by China as national security threats Caitlyn Burchett The Virginian-Pilot Feb 22, 2023



Sen. Mark Warner, D-Va., chair of the Senate Intelligence Committee, pauses to speak with reporters at the Capitol in Washington, Thursday, Nov. 10, 2022

Legislation introduced by Sens. Mark Warner, D-Va., and Rick Scott, R-Fla., would prohibit the purchase of drones from countries identified as national security threats.

In an attempt to protect U.S. data, the <u>American Security Drone Act of 2023</u> would prevent federal agencies from purchasing commercial off-the-shelf drones or unmanned aircraft systems that are manufactured or assembled in China or any entities "subject to influence or control" by China.

Banning the purchase of Chinese drones by federal agencies is not a new concept. The Department of Defense <u>banned the purchase of DJI drones</u>, a popular Chinese brand, in 2017, stating that such systems "pose potential threats to national security." The urgency to ban drones manufactured in China was reignited following news of a high-altitude Chinese surveillance balloon entering U.S. airspace. <a href="https://www.pilotonline.com/government/nation/vp-nw-cnu-security-expo-20230222-gfyhvd4zuva25hsnus3kwq4wgu-story.html">https://www.pilotonline.com/government/nation/vp-nw-cnu-security-expo-20230222-gfyhvd4zuva25hsnus3kwq4wgu-story.html</a>



#### 24Feb23

### Air Speeder Utility Vehicle Maker Mayman Aerospace Scores Investment from

**UAE** Miriam McNabb February 23, 2023 by DRONELIFE Staff Writer Ian M. Crosby



UAE's <u>Tawazun</u>'s investment arm, <u>Strategic Development Fund</u>, is investing \$3 million in <u>Mayman Aerospace</u> through its venture capital program.

A <u>JetPack Aviation Corp.</u> brand, Mayman Aerospace is the <u>US-based</u> manufacturer of the Speeder Air Utility Vehicle (AUV). As part of its investment strategy in dual-use technologies

applicable to defense and civilian sectors, SDF recognizes Speeder's status as a unique new class of high-performance VTOL aircraft.

Speeder offers a groundbreaking mix of portability, speed, payload, and range performance owing to the vectored thrust of its gimbaled turbine engines. The aircraft's high performance is enabled by the energy density of jet fuels like sustainable aviation fuel. The funding will be allocated to advance the Speeder flight test program and further the vehicle's certification process.



"We recognize that Mayman Aerospace has demonstrated unique competence in this highly complex engineering. SDF believes Speeder will deliver valuable, practical applications for defense forces in the very near future," said Mohamed Musabah Al Mazrouei, Director of Investments and Portfolio Management. "The optimization of Speeder's existing propulsion control system,

which can be adapted to future technologies, combined with its flexible operating capabilities influenced our decision to invest." <a href="https://dronelife.com/2023/02/23/mayman-aerospace-scores-investment-from-uae-strategic-development-fund/">https://dronelife.com/2023/02/23/mayman-aerospace-scores-investment-from-uae-strategic-development-fund/</a>